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Ser	Ile	Gln	Val	Ser	Cys	Arg	Ile	Met	Gly	Ile	Thr	Leu	Val	Ser	
				35				40						45	
Lys	Lys	Ala	Asn	Gln	Gln	Leu	Asn	Phe	Thr	Glu	Ala	Lys	Glu	Ala	
				50				55						60	
Cys	Arg	Leu	Leu	Gly	Leu	Ser	Leu	Ala	Gly	Lys	Asp	Gln	Val	Glu	
				65				70						75	
Thr	Ala	Leu	Lys	Ala	Ser	Phe	Glu	Thr	Cys	Ser	Tyr	Gly	Trp	Val	
				80				85						90	
Gly	Asp	Gly	Phe	Val	Val	Ile	Ser	Arg	Ile	Ser	Pro	Asn	Pro	Lys	
				95				100						105	
Cys	Gly	Lys	Asn	Gly	Val	Gly	Val	Leu	Ile	Trp	Lys	Val	Pro	Val	
				110				115						120	
Ser	Arg	Gln	Phe	Ala	Ala	Tyr	Cys	Tyr	Asn	Ser	Ser	Asp	Thr	Trp	
				125				130						135	

Thr Asn Ser Cys Ile Pro Glu Ile Ile Thr Thr Lys Asp Pro Ile
140 145 150

Phe Asn Thr Gln Thr Ala Thr Gln Thr Thr Glu Phe Ile Val Ser
155 160 165

Asp Ser Thr Tyr Ser Val Ala Ser Pro Tyr Ser Thr Ile Pro Ala
170 175 180

Pro Thr Thr Thr Pro Pro Ala Pro Ala Ser Thr Ser Ile Pro Arg
185 190 195

Arg Lys Lys Leu Ile Cys Val Thr Glu Val Phe Met Glu Thr Ser
200 205 210

Thr Met Ser Thr Glu Thr Glu Pro Phe Val Glu Asn Lys Ala Ala
215 220 225

Phe Lys Asn Glu Ala Ala Gly Phe Gly Gly Val Pro Thr Ala Leu
230 235 240

Leu Val Leu Ala Leu Leu Phe Phe Gly Ala Ala Ala Gly Leu Gly
245 250 255

Phe Cys Tyr Val Lys Arg Tyr Val Lys Ala Phe Pro Phe Thr Asn
260 265 270

Lys Asn Gln Gln Lys Glu Met Ile Glu Thr Lys Val Val Lys Glu
275 280 285

Glu Lys Ala Asn Asp Ser Asn Pro Asn Glu Glu Ser Lys Lys Thr
290 295 300

Asp Lys Asn Pro Glu Glu Ser Lys Ser Pro Ser Lys Thr Thr Val
305 310 315

Arg Cys Leu Glu Ala Glu Val
320

<210> 7
<211> 2586
<212> DNA
<213> Homo Sapien

<400> 7
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ccgcagcgca actcggtcca gtcggggcgg cggctgcggg cgcagagcgg 150

agatgcagcg gcttggggcc accctgctgt gcctgctgct ggcggcggcg 200

gtccccacgg cccccgcgcc cgctccgacg gcgacctcgg ctccagtcaa 250

gcccggcccg gctctcagct acccgcagga ggaggccacc ctcaatgaga 300

tgttccgcga ggttgaggaa ctgatggagg acacgcagca caaattgcgc 350

agcgcggtgg aagagatgga ggcagaagaa gctgctgcta aagcatcatc 400

agaagtgaac ctggcaaact tacctcccag ctatcacaat gagaccaaca 450

cagacacgaa ggttggaaat aataccatcc atgtgcaccg agaaattcac 500

aagataacca acaaccagac tggacaaatg gtcttttcag agacagttat 550

cacatctgtg ggagacgaag aaggcagaag gagccacgag tgcatcatcg 600

acgaggactg tgggcccagc atgtactgcc agtttgccag cttccagtac 650

acctgccagc catgccgggg ccagaggatg ctctgcaccc gggacagtga 700

gtgctgtgga gaccagctgt gtgtctgggg tcactgcacc aaaatggcca 750

ccaggggcag caatgggacc atctgtgaca accagaggga ctgccagccg 800

gggctgtgct gtgccttcca gagaggcctg ctgttccctg tgtgcacacc 850

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tgcccagaga ggtccccgat gagtatgaag ttggcagctt catggaggag 1100

gtgcgccagg agctggagga cctggagagg agcctgactg aagagatggc 1150

gctgggggag cctgcggctg ccgccgctgc actgctggga ggggaagaga 1200

tttagatctg gaccaggctg tgggtagatg tgcaatagaa atagctaatt 1250

tatttcccca ggtgtgtgct ttaggcgtgg gctgaccagg cttcttccta 1300

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agtctccctc tgattggttt tggggaaatg tggagaagag tgccctgctt 1600

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gaaggagaat gggatttttc ttgaggcatg cacatctgga attaaggtca 2050

aactaattct cacatccctc taaaagtaaa ctactgttag gaacagcagt 2100

gttctcacag tgtggggcag ccgtccttct aatgaagaca atgatattga 2150

cactgtccct ctttggcagt tgcattagta actttgaaag gtatatgact 2200

gagcgtagca tacaggttaa cctgcagaaa cagtacttag gtaattgtag 2250

ggcgaggatt ataaatgaaa tttgcaaaat cacttagcag caactgaaga 2300

caattatcaa ccacgtggag aaaatcaaac cgagcagggc tgtgtgaaac 2350

atggttgtaa tatgcgactg cgaacactga actctacgcc actccacaaa 2400

tgatgttttc aggtgtcatg gactgttgcc accatgtatt catccagagt 2450

tcttaaagtt taaagttgca catgattgta taagcatgct ttctttgagt 2500

tttaaattat gtataaacat aagttgcatt tagaaatcaa gcataaatca 2550

cttcaactgc aaaaaaaaaa aaaaaaaaaa aaaaaa 2586

<210> 8
<211> 350
<212> PRT
<213> Homo Sapien

<400> 8

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Met Gln Arg Leu Gly Ala Thr Leu Leu Cys Leu Leu Leu Ala Ala
  1               5                  10                  15

Ala Val Pro Thr Ala Pro Ala Pro Ala Pro Thr Ala Thr Ser Ala
                20                  25                  30

Pro Val Lys Pro Gly Pro Ala Leu Ser Tyr Pro Gln Glu Glu Ala
                35                  40                  45

Thr Leu Asn Glu Met Phe Arg Glu Val Glu Glu Leu Met Glu Asp
                50                  55                  60

Thr Gln His Lys Leu Arg Ser Ala Val Glu Glu Met Glu Ala Glu
                65                  70                  75

Glu Ala Ala Ala Lys Ala Ser Ser Glu Val Asn Leu Ala Asn Leu
```

```
                80                  85                  90

Pro Pro Ser Tyr His Asn Glu Thr Asn Thr Asp Thr Lys Val Gly
                95                 100                 105

Asn Asn Thr Ile His Val His Arg Glu Ile His Lys Ile Thr Asn
               110                 115                 120

Asn Gln Thr Gly Gln Met Val Phe Ser Glu Thr Val Ile Thr Ser
               125                 130                 135

Val Gly Asp Glu Glu Gly Arg Arg Ser His Glu Cys Ile Ile Asp
               140                 145                 150

Glu Asp Cys Gly Pro Ser Met Tyr Cys Gln Phe Ala Ser Phe Gln
               155                 160                 165

Tyr Thr Cys Gln Pro Cys Arg Gly Gln Arg Met Leu Cys Thr Arg
               170                 175                 180

Asp Ser Glu Cys Cys Gly Asp Gln Leu Cys Val Trp Gly His Cys
               185                 190                 195

Thr Lys Met Ala Thr Arg Gly Ser Asn Gly Thr Ile Cys Asp Asn
               200                 205                 210

Gln Arg Asp Cys Gln Pro Gly Leu Cys Cys Ala Phe Gln Arg Gly
               215                 220                 225

Leu Leu Phe Pro Val Cys Thr Pro Leu Pro Val Glu Gly Glu Leu
               230                 235                 240

Cys His Asp Pro Ala Ser Arg Leu Leu Asp Leu Ile Thr Trp Glu
               245                 250                 255

Leu Glu Pro Asp Gly Ala Leu Asp Arg Cys Pro Cys Ala Ser Gly
               260                 265                 270

Leu Leu Cys Gln Pro His Ser His Ser Leu Val Tyr Val Cys Lys
               275                 280                 285

Pro Thr Phe Val Gly Ser Arg Asp Gln Asp Gly Glu Ile Leu Leu
               290                 295                 300

Pro Arg Glu Val Pro Asp Glu Tyr Glu Val Gly Ser Phe Met Glu
               305                 310                 315

Glu Val Arg Gln Glu Leu Glu Asp Leu Glu Arg Ser Leu Thr Glu
               320                 325                 330

Glu Met Ala Leu Gly Glu Pro Ala Ala Ala Ala Ala Ala Leu Leu
               335                 340                 345

Gly Gly Glu Glu Ile
               350
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<210> 9

<211> 1395
<212> DNA
<213> Homo Sapien

<400> 9
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tgtgcgtctt ccagggctac tcatccaaag gcctaatcca acgttctgtc 150

ttcaatctgc aaatctatgg ggtcctgggg ctcttctgga cccttaactg 200

ggtactggcc ctgggccaat gcgtcctcgc tggagccttt gcctccttct 250

actgggcctt ccacaagccc caggacatcc ctaccttccc cttaatctct 300

gccttcatcc gcacactccg ttaccacact gggtcattgg catttggagc 350

cctcatcctg acccttgtgc agatagcccg ggtcatcttg gagtatattg 400

accacaagct cagaggagtg cagaaccctg tagcccgctg catcatgtgc 450

tgtttcaagt gctgcctctg gtgtctggaa aaatttatca agttcctaaa 500

ccgcaatgca tacatcatga tcgccatcta cgggaagaat ttctgtgtct 550

cagccaaaaa tgcgttcatg ctactcatgc gaaacattgt cagggtggtc 600

gtcctggaca aagtcacaga cctgctgctg ttctttggga agctgctggt 650

ggtcggaggc gtgggggtcc tgtccttctt ttttttctcc ggtcgcatcc 700

cggggctggg taaagacttt aagagccccc acctcaacta ttactggctg 750

cccatcatga cctccatcct gggggcctat gtcatcgcca gcggcttctt 800

cagcgttttc ggcatgtgtg tggacacgct cttcctctgc ttcctggaag 850

acctggagcg gaacaacggc tccctggacc ggccctacta catgtccaag 900

agccttctaa agattctggg caagaagaac gaggcgcccc cggacaacaa 950

gaagaggaag aagtgacagc tccggccctg atccaggact gcaccccacc 1000

cccaccgtcc agccatccaa cctcacttcg ccttacaggt ctccattttg 1050

tggtaaaaaa aggttttagg ccaggcgccg tggctcacgc ctgtaatcca 1100

acactttgag aggctgaggc gggcggatca cctgagtcag gagttcgaga 1150

ccagcctggc caacatggtg aaacctccgt ctctattaaa aatacaaaaa 1200

ttagccgaga gtggtggcat gcacctgtca tcccagctac tcgggaggct 1250

gaggcaggag aatcgcttga acccgggagg cagaggttgc agtgagccga 1300

gatcgcgcca ctgcactcca acctgggtga cagactctgt ctccaaaaca 1350

aaacaaacaa acaaaaagat tttattaaag atattttgtt aactc 1395

<210> 10
<211> 321
<212> PRT
<213> Homo Sapien

<400> 10

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Arg Thr Arg Gly Arg Thr Arg Gly Gly Cys Glu Lys Val Pro Ile
  1               5                  10                  15

Asn Thr Ser Cys Asn Pro Thr Ala His Leu Val Asn Ser Ser Cys
                 20                  25                  30

Pro Gly Leu Met Cys Val Phe Gln Gly Tyr Ser Ser Lys Gly Leu
                 35                  40                  45

Ile Gln Arg Ser Val Phe Asn Leu Gln Ile Tyr Gly Val Leu Gly
                 50                  55                  60

Leu Phe Trp Thr Leu Asn Trp Val Leu Ala Leu Gly Gln Cys Val
                 65                  70                  75

Leu Ala Gly Ala Phe Ala Ser Phe Tyr Trp Ala Phe His Lys Pro
                 80                  85                  90

Gln Asp Ile Pro Thr Phe Pro Leu Ile Ser Ala Phe Ile Arg Thr
                 95                 100                 105

Leu Arg Tyr His Thr Gly Ser Leu Ala Phe Gly Ala Leu Ile Leu
                110                 115                 120

Thr Leu Val Gln Ile Ala Arg Val Ile Leu Glu Tyr Ile Asp His
                125                 130                 135

Lys Leu Arg Gly Val Gln Asn Pro Val Ala Arg Cys Ile Met Cys
                140                 145                 150

Cys Phe Lys Cys Cys Leu Trp Cys Leu Glu Lys Phe Ile Lys Phe
                155                 160                 165

Leu Asn Arg Asn Ala Tyr Ile Met Ile Ala Ile Tyr Gly Lys Asn
                170                 175                 180

Phe Cys Val Ser Ala Lys Asn Ala Phe Met Leu Leu Met Arg Asn
                185                 190                 195

Ile Val Arg Val Val Val Leu Asp Lys Val Thr Asp Leu Leu Leu
                200                 205                 210

Phe Phe Gly Lys Leu Leu Val Val Gly Gly Val Gly Val Leu Ser
                215                 220                 225

Phe Phe Phe Phe Ser Gly Arg Ile Pro Gly Leu Gly Lys Asp Phe
                230                 235                 240
```

```
Lys Ser Pro His Leu Asn Tyr Tyr Trp Leu Pro Ile Met Thr Ser
                245                 250                 255
Ile Leu Gly Ala Tyr Val Ile Ala Ser Gly Phe Phe Ser Val Phe
                260                 265                 270

Gly Met Cys Val Asp Thr Leu Phe Leu Cys Phe Leu Glu Asp Leu
                275                 280                 285

Glu Arg Asn Asn Gly Ser Leu Asp Arg Pro Tyr Tyr Met Ser Lys
                290                 295                 300

Ser Leu Leu Lys Ile Leu Gly Lys Lys Asn Glu Ala Pro Pro Asp
                305                 310                 315

Asn Lys Lys Arg Lys Lys
                320
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<210> 11
<211> 1901
<212> DNA
<213> Homo Sapien

<400> 11

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ctctgccccc tgcatcctgt gcagctgctg ccccgccagc cgcaactcca 150

ccgtgagccg cctcatcttc acgttcttcc tcttcctggg ggtgctggtg 200

tccatcatta tgctgagccc gggcgtggag agtcagctct acaagctgcc 250

ctgggtgtgt gaggaggggg ccgggatccc caccgtcctg cagggccaca 300

tcgactgtgg ctccctgctt ggctaccgcg ctgtctaccg catgtgcttc 350

gccacggcgg ccttcttctt cttctttttc accctgctca tgctctgcgt 400

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cctcttcatc ctcatccagc tggtgctgct catcgacttt gcgcactcct 600

ggaaccagcg gtggctgggc aaggccgagg agtgcgattc ccgtgcctgg 650

tacgcaggcc tcttcttctt cactctcctc ttctacttgc tgtcgatcgc 700

ggccgtggcg ctgatgttca tgtactacac tgagcccagc ggctgccacg 750

agggcaaggt cttcatcagc ctcaacctca ccttctgtgt ctgcgtgtcc 800

atcgctgctg tcctgcccaa ggtccaggac gcccagccca actcgggtct 850
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gctgcaggcc tcggtcatca ccctctacac catgtttgtc acctggtcag 900

ccctatccag tatccctgaa cagaaatgca acccccattt gccaacccag 950

ctgggcaacg agacagttgt ggcaggcccc gagggctatg agacccagtg 1000
gtgggatgcc ccgagcattg tgggcctcat catcttcctc ctgtgcaccc 1050

tcttcatcag tctgcgctcc tcagaccacc ggcaggtgaa cagcctgatg 1100

cagaccgagg agtgcccacc tatgctagac gccacacagc agcagcagca 1150

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tcacctacag ctactccttc ttccacttct gcctggtgct ggcctcactg 1250

cacgtcatga tgacgctcac caactggtac aagcccggtg agacccggaa 1300

gatgatcagc acgtggaccg ccgtgtgggt gaagatctgt gccagctggg 1350

cagggctgct cctctacctg tggaccctgg tagccccact cctcctgcgc 1400

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ggggaactcc caccacagtg gggcatccgg cactgaagcc ctggtgttcc 1800

tggtcacgtc ccccagggga ccctgccccc ttcctggact tcgtgcctta 1850

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a 1901

<210> 12
<211> 457
<212> PRT
<213> Homo Sapien

<400> 12
Met Gly Ala Cys Leu Gly Ala Cys Ser Leu Leu Ser Cys Ala Ser
1 5 10 15

Cys Leu Cys Gly Ser Ala Pro Cys Ile Leu Cys Ser Cys Cys Pro
20 25 30

Ala Ser Arg Asn Ser Thr Val Ser Arg Leu Ile Phe Thr Phe Phe

```
                35                  40                  45

Leu Phe Leu Gly Val Leu Val Ser Ile Ile Met Leu Ser Pro Gly
                50                  55                  60

Val Glu Ser Gln Leu Tyr Lys Leu Pro Trp Val Cys Glu Glu Gly
                65                  70                  75

Ala Gly Ile Pro Thr Val Leu Gln Gly His Ile Asp Cys Gly Ser
                80                  85                  90

Leu Leu Gly Tyr Arg Ala Val Tyr Arg Met Cys Phe Ala Thr Ala
                95                  100                 105

Ala Phe Phe Phe Phe Phe Phe Thr Leu Leu Met Leu Cys Val Ser
                110                 115                 120

Ser Ser Arg Asp Pro Arg Ala Ala Ile Gln Asn Gly Phe Trp Phe
                125                 130                 135

Phe Lys Phe Leu Ile Leu Val Gly Leu Thr Val Gly Ala Phe Tyr
                140                 145                 150

Ile Pro Asp Gly Ser Phe Thr Asn Ile Trp Phe Tyr Phe Gly Val
                155                 160                 165

Val Gly Ser Phe Leu Phe Ile Leu Ile Gln Leu Val Leu Leu Ile
                170                 175                 180

Asp Phe Ala His Ser Trp Asn Gln Arg Trp Leu Gly Lys Ala Glu
                185                 190                 195

Glu Cys Asp Ser Arg Ala Trp Tyr Ala Gly Leu Phe Phe Phe Thr
                200                 205                 210

Leu Leu Phe Tyr Leu Leu Ser Ile Ala Ala Val Ala Leu Met Phe
                215                 220                 225

Met Tyr Tyr Thr Glu Pro Ser Gly Cys His Glu Gly Lys Val Phe
                230                 235                 240

Ile Ser Leu Asn Leu Thr Phe Cys Val Cys Val Ser Ile Ala Ala
                245                 250                 255

Val Leu Pro Lys Val Gln Asp Ala Gln Pro Asn Ser Gly Leu Leu
                260                 265                 270

Gln Ala Ser Val Ile Thr Leu Tyr Thr Met Phe Val Thr Trp Ser
                275                 280                 285

Ala Leu Ser Ser Ile Pro Glu Gln Lys Cys Asn Pro His Leu Pro
                290                 295                 300

Thr Gln Leu Gly Asn Glu Thr Val Val Ala Gly Pro Glu Gly Tyr
                305                 310                 315

Glu Thr Gln Trp Trp Asp Ala Pro Ser Ile Val Gly Leu Ile Ile
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320 325 330

Phe Leu Leu Cys Thr Leu Phe Ile Ser Leu Arg Ser Ser Asp His
335 340 345

Arg Gln Val Asn Ser Leu Met Gln Thr Glu Glu Cys Pro Pro Met
350 355 360

Leu Asp Ala Thr Gln Gln Gln Gln Gln Val Ala Ala Cys Glu
365 370 375

Gly Arg Ala Phe Asp Asn Glu Gln Asp Gly Val Thr Tyr Ser Tyr
380 385 390

Ser Phe Phe His Phe Cys Leu Val Leu Ala Ser Leu His Val Met
395 400 405

Met Thr Leu Thr Asn Trp Tyr Lys Pro Gly Glu Thr Arg Lys Met
410 415 420

Ile Ser Thr Trp Thr Ala Val Trp Val Lys Ile Cys Ala Ser Trp
425 430 435

Ala Gly Leu Leu Leu Tyr Leu Trp Thr Leu Val Ala Pro Leu Leu
440 445 450

Leu Arg Asn Arg Asp Phe Ser
455

<210> 13
<211> 1572
<212> DNA
<213> Homo Sapien

<400> 13
cgggccagcc tggggcggcc ggccaggaac cacccgttaa ggtgtcttct 50

ctttagggat ggtgaggttg gaaaaagact cctgtaaccc tcctccagga 100

tgaaccacct gccagaagac atggagaacg ctctcaccgg gagccagagc 150

tcccatgctt ctctgcgcaa tatccattcc atcaacccca cacaactcat 200

ggccaggatt gagtcctatg aaggaaggga aaagaaaggc atatctgatg 250

tcaggaggac tttctgtttg tttgtcacct ttgacctctt attcgtaaca 300

ttactgtgga taatagagtt aaatgtgaat ggaggcattg agaacacatt 350

agagaaggag gtgatgcagt atgactacta ttcttcatat tttgatatat 400

ttcttctggc agtttttcga tttaaagtgt taatacttgc atatgctgtg 450

tgcagactgc gccattggtg ggcaatagcg ttgacaacgg cagtgaccag 500

tgccttttta ctagcaaaag tgatcctttc gaagcttttc tctcaagggg 550

ctttggcta tgtgctgccc atcatttcat tcatccttgc ctggattgag 600

acgtggttcc tggatttcaa agtgttacct caagaagcag aagaagaaaa 650

cagactcctg atagttcagg atgcttcaga gagggcagca cttatacctg 700

gtggtctttc tgatggtcag ttttattccc ctcctgaatc cgaagcagga 750

tctgaagaag ctgaagaaaa acaggacagt gagaaaccac ttttagaact 800

atgagtacta cttttgttaa atgtgaaaaa ccctcacaga aagtcatcga 850

ggcaaaaaga ggcaggcagt ggagtctccc tgtcgacagt aaagttgaaa 900

tggtgacgtc cactgctggc tttattgaac agctaataaa gatttattta 950
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gcctgtggct ggtaaggtaa tgtcatgatt catcctctct tcagtgagac 1050

tgagcctgat gtgttaacaa ataggtgaag aaagtcttgt gctgtattcc 1100

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atttattttg tatttctttt ttaacactct acatttccct tgttttttaa 1250

ctcatgcaca tgtgctcttt gtacagtttt aaaaagtgta ataaaatctg 1300

acatgtcaat gtggctagtt ttatttttct tgttttgcat tatgtgtatg 1350

gcctgaagtg ttggacttgc aaaaggggaa gaaaggaatt gcgaatacat 1400

gtaaaatgtc accagacatt tgtattattt ttatcatgaa atcatgtttt 1450

tctctgattg ttctgaaatg ttctaaatac tcttattttg aatgcacaaa 1500

atgacttaaa ccattcatat catgtttcct ttgcgttcag ccaatttcaa 1550

ttaaaatgaa ctaaattaaa aa 1572

<210> 14
<211> 234
<212> PRT
<213> Homo Sapien

<400> 14
Met Asn His Leu Pro Glu Asp Met Glu Asn Ala Leu Thr Gly Ser
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Gln Ser Ser His Ala Ser Leu Arg Asn Ile His Ser Ile Asn Pro
20 25 30

Thr Gln Leu Met Ala Arg Ile Glu Ser Tyr Glu Gly Arg Glu Lys
35 40 45

Lys Gly Ile Ser Asp Val Arg Arg Thr Phe Cys Leu Phe Val Thr

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                50                  55                  60

Phe Asp Leu Leu Phe Val Thr Leu Leu Trp Ile Ile Glu Leu Asn
                65                  70                  75

Val Asn Gly Gly Ile Glu Asn Thr Leu Glu Lys Glu Val Met Gln
                80                  85                  90

Tyr Asp Tyr Tyr Ser Ser Tyr Phe Asp Ile Phe Leu Leu Ala Val
                95                 100                 105

Phe Arg Phe Lys Val Leu Ile Leu Ala Tyr Ala Val Cys Arg Leu
               110                 115                 120

Arg His Trp Trp Ala Ile Ala Leu Thr Thr Ala Val Thr Ser Ala
               125                 130                 135

Phe Leu Leu Ala Lys Val Ile Leu Ser Lys Leu Phe Ser Gln Gly
               140                 145                 150

Ala Phe Gly Tyr Val Leu Pro Ile Ile Ser Phe Ile Leu Ala Trp
               155                 160                 165

Ile Glu Thr Trp Phe Leu Asp Phe Lys Val Leu Pro Gln Glu Ala
               170                 175                 180

Glu Glu Glu Asn Arg Leu Leu Ile Val Gln Asp Ala Ser Glu Arg
               185                 190                 195

Ala Ala Leu Ile Pro Gly Gly Leu Ser Asp Gly Gln Phe Tyr Ser
               200                 205                 210

Pro Pro Glu Ser Glu Ala Gly Ser Glu Glu Ala Glu Glu Lys Gln
               215                 220                 225

Asp Ser Glu Lys Pro Leu Leu Glu Leu
               230
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<210> 15
<211> 2768
<212> DNA
<213> Homo Sapien

<400> 15

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ccgcctcccg ggacagaaga tgtgctccag ggtccctctg ctgctgccgc 150

tgctcctgct actggccctg gggcctgggg tgcagggctg cccatccggc 200

tgccagtgca gccagccaca gacagtcttc tgcactgccc gccaggggac 250

cacggtgccc cgagacgtgc cacccgacac ggtggggctg tacgtctttg 300

agaacggcat caccatgctc gacgcaggca gctttgccgg cctgccgggc 350
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ctgcagctcc tggacctgtc acagaaccag atcgccagcc tgcccagcgg 400

ggtcttccag ccactcgcca acctcagcaa cctggacctg acggccaaca 450

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cgcctctacc tgggcaagaa ccgcatccgc cacatccagc ctggtgcctt 550

cgacacgctc gaccgcctcc tggagctcaa gctgcaggac aacgagctgc 600

gggcactgcc cccgctgcgc ctgccccgcc tgctgctgct ggacctcagc 650

cacaacagcc tcctggccct ggagcccggc atcctggaca ctgccaacgt 700

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tcttcagccg cttgcgcaac ctccacgacc tggatgtgtc cgacaaccag 800

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aaaagatgaa gtgtgaaa 2768

<210> 16
<211> 673
<212> PRT
<213> Homo Sapien

<400> 16

Met	Cys	Ser	Arg	Val	Pro	Leu	Leu	Leu	Pro	Leu	Leu	Leu	Leu	Leu	
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Ala	Leu	Gly	Pro	Gly	Val	Gln	Gly	Cys	Pro	Ser	Gly	Cys	Gln	Cys	
				20					25					30	

Ser	Gln	Pro	Gln	Thr	Val	Phe	Cys	Thr	Ala	Arg	Gln	Gly	Thr	Thr	
				35					40					45	

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Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
                50                  55                  60

Glu Asn Gly Ile Thr Met Leu Asp Ala Gly Ser Phe Ala Gly Leu
                65                  70                  75

Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
                80                  85                  90

Leu Pro Ser Gly Val Phe Gln Pro Leu Ala Asn Leu Ser Asn Leu
                95                 100                 105

Asp Leu Thr Ala Asn Arg Leu His Glu Ile Thr Asn Glu Thr Phe
               110                 115                 120

Arg Gly Leu Arg Arg Leu Glu Arg Leu Tyr Leu Gly Lys Asn Arg
               125                 130                 135

Ile Arg His Ile Gln Pro Gly Ala Phe Asp Thr Leu Asp Arg Leu
               140                 145                 150

Leu Glu Leu Lys Leu Gln Asp Asn Glu Leu Arg Ala Leu Pro Pro
               155                 160                 165

Leu Arg Leu Pro Arg Leu Leu Leu Leu Asp Leu Ser His Asn Ser
               170                 175                 180

Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu
               185                 190                 195

Ala Leu Arg Leu Ala Gly Leu Gly Leu Gln Gln Leu Asp Glu Gly
               200                 205                 210

Leu Phe Ser Arg Leu Arg Asn Leu His Asp Leu Asp Val Ser Asp
               215                 220                 225

Asn Gln Leu Glu Arg Val Pro Pro Val Ile Arg Gly Leu Arg Gly
               230                 235                 240

Leu Thr Arg Leu Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu
               245                 250                 255

Arg Pro Glu Asp Leu Ala Gly Leu Ala Ala Leu Gln Glu Leu Asp
               260                 265                 270

Val Ser Asn Leu Ser Leu Gln Ala Leu Pro Gly Asp Leu Ser Gly
               275                 280                 285

Leu Phe Pro Arg Leu Arg Leu Leu Ala Ala Ala Arg Asn Pro Phe
               290                 295                 300

Asn Cys Val Cys Pro Leu Ser Trp Phe Gly Pro Trp Val Arg Glu
               305                 310                 315

Ser His Val Thr Leu Ala Ser Pro Glu Glu Thr Arg Cys His Phe
               320                 325                 330
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Pro Pro Lys Asn Ala Gly Arg Leu Leu Leu Glu Leu Asp Tyr Ala
                335                 340                 345

Asp Phe Gly Cys Pro Ala Thr Thr Thr Thr Ala Thr Val Pro Thr
                350                 355                 360

Thr Arg Pro Val Val Arg Glu Pro Thr Ala Leu Ser Ser Ser Leu
                365                 370                 375

Ala Pro Thr Trp Leu Ser Pro Thr Ala Pro Ala Thr Glu Ala Pro
                380                 385                 390

Ser Pro Pro Ser Thr Ala Pro Pro Thr Val Gly Pro Val Pro Gln
                395                 400                 405

Pro Gln Asp Cys Pro Pro Ser Thr Cys Leu Asn Gly Gly Thr Cys
                410                 415                 420

His Leu Gly Thr Arg His His Leu Ala Cys Leu Cys Pro Glu Gly
                425                 430                 435

Phe Thr Gly Leu Tyr Cys Glu Ser Gln Met Gly Gln Gly Thr Arg
                440                 445                 450

Pro Ser Pro Thr Pro Val Thr Pro Arg Pro Pro Arg Ser Leu Thr
                455                 460                 465

Leu Gly Ile Glu Pro Val Ser Pro Thr Ser Leu Arg Val Gly Leu
                470                 475                 480

Gln Arg Tyr Leu Gln Gly Ser Ser Val Gln Leu Arg Ser Leu Arg
                485                 490                 495

Leu Thr Tyr Arg Asn Leu Ser Gly Pro Asp Lys Arg Leu Val Thr
                500                 505                 510

Leu Arg Leu Pro Ala Ser Leu Ala Glu Tyr Thr Val Thr Gln Leu
                515                 520                 525

Arg Pro Asn Ala Thr Tyr Ser Val Cys Val Met Pro Leu Gly Pro
                530                 535                 540

Gly Arg Val Pro Glu Gly Glu Glu Ala Cys Gly Glu Ala His Thr
                545                 550                 555

Pro Pro Ala Val His Ser Asn His Ala Pro Val Thr Gln Ala Arg
                560                 565                 570

Glu Gly Asn Leu Pro Leu Leu Ile Ala Pro Ala Leu Ala Ala Val
                575                 580                 585

Leu Leu Ala Ala Leu Ala Ala Val Gly Ala Ala Tyr Cys Val Arg
                590                 595                 600

Arg Gly Arg Ala Met Ala Ala Ala Ala Gln Asp Lys Gly Gln Val
                605                 610                 615
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Gly Pro Gly Ala Gly Pro Leu Glu Leu Glu Gly Val Lys Val Pro
620 625 630

Leu Glu Pro Gly Pro Lys Ala Thr Glu Gly Gly Gly Glu Ala Leu
635 640 645

Pro Ser Gly Ser Glu Cys Glu Val Pro Leu Met Gly Phe Pro Gly
650 655 660

Pro Gly Leu Gln Ser Pro Leu His Ala Lys Pro Tyr Ile
665 670

<210> 17
<211> 1672
<212> DNA
<213> Homo Sapien

<400> 17
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tgctgctgag cttggcctcg gcgtcctcgg atgaagaagg cagccaggat 150

gaatccttag attccaagac tactttgaca tcagatgagt cagtaaagga 200

ccatactact gcaggcagag tagttgctgg tcaaatattt cttgattcag 250

aagaatctga attagaatcc tctattcaag aagaggaaga cagcctcaag 300

agccaagagg gggaaagtgt cacagaagat atcagctttc tagagtctcc 350

aaatccagaa aacaaggact atgaagagcc aaagaaagta cggaaaccag 400
ctttgaccgc cattgaaggc acagcacatg gggagccctg ccacttccct 450

tttcttttcc tagataagga gtatgatgaa tgtacatcag atgggaggga 500

agatggcaga ctgtggtgtg ctacaaccta tgactacaaa gcagatgaaa 550

agtggggctt ttgtgaaact gaagaagagg ctgctaagag acggcagatg 600

caggaagcag aaatgatgta tcaaactgga atgaaaatcc ttaatggaag 650

caataagaaa agccaaaaaa gagaagcata tcggtatctc caaaaggcag 700

caagcatgaa ccataccaaa gccctggaga gagtgtcata tgctctttta 750

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gaagctgact gaggaaggct ctcccaaggg acagactgct cttggctttc 850

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gatataacac atggaatcta catgtaaatg aaagttggtg gagtccacaa 1150

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tgataaatgg ctctttttaa attttctctg agttggaatt gtcagaatca 1250

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attttgcaac aatgccctaa gaattgttaa aattcatgga gttatttgtg 1400

cagaatgact ccagagagct ctactttctg ttttttactt ttcatgattg 1450

gctgtcttcc catttattct ggtcatttat tgctagtgac actgtgcctg 1500

cttccagtag tctcattttc cctattttgc taatttgtta ctttttcttt 1550

gctaatttgg aagattaact catttttaat aaaattatgt ctaagattaa 1600

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650

aaaaaaaaaa aaaaaaaaaa aa 1672

<210> 18
<211> 301
<212> PRT
<213> Homo Sapien

<400> 18

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Leu	Ser	Leu	Ala	Ser	Ala	Ser	Ser	Asp	Glu	Glu	Gly	Ser	Gln	Asp	
				20				25						30	
Glu	Ser	Leu	Asp	Ser	Lys	Thr	Thr	Leu	Thr	Ser	Asp	Glu	Ser	Val	
				35				40						45	
Lys	Asp	His	Thr	Thr	Ala	Gly	Arg	Val	Val	Ala	Gly	Gln	Ile	Phe	
				50				55						60	
Leu	Asp	Ser	Glu	Glu	Ser	Glu	Leu	Glu	Ser	Ser	Ile	Gln	Glu	Glu	
				65				70						75	
Glu	Asp	Ser	Leu	Lys	Ser	Gln	Glu	Gly	Glu	Ser	Val	Thr	Glu	Asp	
				80				85						90	
Ile	Ser	Phe	Leu	Glu	Ser	Pro	Asn	Pro	Glu	Asn	Lys	Asp	Tyr	Glu	
				95				100						105	
Glu	Pro	Lys	Lys	Val	Arg	Lys	Pro	Ala	Leu	Thr	Ala	Ile	Glu	Gly	
				110				115						120	

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Thr Ala His Gly Glu Pro Cys His Phe Pro Phe Leu Phe Leu Asp
                125                 130                 135

Lys Glu Tyr Asp Glu Cys Thr Ser Asp Gly Arg Glu Asp Gly Arg
                140                 145                 150

Leu Trp Cys Ala Thr Thr Tyr Asp Tyr Lys Ala Asp Glu Lys Trp
                155                 160                 165

Gly Phe Cys Glu Thr Glu Glu Glu Ala Ala Lys Arg Arg Gln Met
                170                 175                 180

Gln Glu Ala Glu Met Met Tyr Gln Thr Gly Met Lys Ile Leu Asn
                185                 190                 195

Gly Ser Asn Lys Lys Ser Gln Lys Arg Glu Ala Tyr Arg Tyr Leu
                200                 205                 210

Gln Lys Ala Ala Ser Met Asn His Thr Lys Ala Leu Glu Arg Val
                215                 220                 225

Ser Tyr Ala Leu Leu Phe Gly Asp Tyr Leu Pro Gln Asn Ile Gln
                230                 235                 240

Ala Ala Arg Glu Met Phe Glu Lys Leu Thr Glu Glu Gly Ser Pro
                245                 250                 255

Lys Gly Gln Thr Ala Leu Gly Phe Leu Tyr Ala Ser Gly Leu Gly
                260                 265                 270

Val Asn Ser Ser Gln Ala Lys Ala Leu Val Tyr Tyr Thr Phe Gly
                275                 280                 285

Ala Leu Gly Gly Asn Leu Ile Ala His Met Val Leu Val Ser Arg
                290                 295                 300

Leu
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<210> 19
<211> 1508
<212> DNA
<213> Homo Sapien

<400> 19

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ttctgtggac tcgtaaagga aaactaaaga ttgaagacat cactgataag 200

tacatttttа tcactggatg tgactcgggc tttggaaact tggcagccag 250

aacttttgat aaaaagggat ttcatgtaat cgctgcctgt ctgactgaat 300
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caggatcaac agctttaaag gcagaaacct cagagagact tcgtactgtg 350

cttctggatg tgaccgaccc agagaatgtc aagaggactg cccagtgggt 400

gaagaaccaa gttggggaga aaggtctctg gggtctgatc aataatgctg 450

gtgttcccgg cgtgctggct cccactgact ggctgacact agaggactac 500

agagaaccta ttgaagtgaa cctgtttgga ctcatcagtg tgacactaaa 550

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gtgttggagg tcgccttgca atcgttggag ggggctatac tccatccaaa 650

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cagatccagt aaaggtaatt gaaaaaaaac tcgccatttg ggagcagctg 800

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taaaagataa gtcaacccaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1500

aaaaaaaa 1508

<210> 20
<211> 319
<212> PRT
<213> Homo Sapien

<400> 20
Met Leu Phe Trp Val Leu Gly Leu Leu Ile Leu Cys Gly Phe Leu

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                20                  25                  30

Tyr Ile Phe Ile Thr Gly Cys Asp Ser Gly Phe Gly Asn Leu Ala
                35                  40                  45

Ala Arg Thr Phe Asp Lys Lys Gly Phe His Val Ile Ala Ala Cys
                50                  55                  60

Leu Thr Glu Ser Gly Ser Thr Ala Leu Lys Ala Glu Thr Ser Glu
                65                  70                  75

Arg Leu Arg Thr Val Leu Leu Asp Val Thr Asp Pro Glu Asn Val
                80                  85                  90

Lys Arg Thr Ala Gln Trp Val Lys Asn Gln Val Gly Glu Lys Gly
                95                 100                 105

Leu Trp Gly Leu Ile Asn Asn Ala Gly Val Pro Gly Val Leu Ala
               110                 115                 120

Pro Thr Asp Trp Leu Thr Leu Glu Asp Tyr Arg Glu Pro Ile Glu
               125                 130                 135

Val Asn Leu Phe Gly Leu Ile Ser Val Thr Leu Asn Met Leu Pro
               140                 145                 150

Leu Val Lys Lys Ala Gln Gly Arg Val Ile Asn Val Ser Ser Val
               155                 160                 165

Gly Gly Arg Leu Ala Ile Val Gly Gly Gly Tyr Thr Pro Ser Lys
               170                 175                 180

Tyr Ala Val Glu Gly Phe Asn Asp Ser Leu Arg Arg Asp Met Lys
               185                 190                 195

Ala Phe Gly Val His Val Ser Cys Ile Glu Pro Gly Leu Phe Lys
               200                 205                 210

Thr Asn Leu Ala Asp Pro Val Lys Val Ile Glu Lys Lys Leu Ala
               215                 220                 225

Ile Trp Glu Gln Leu Ser Pro Asp Ile Lys Gln Gln Tyr Gly Glu
               230                 235                 240

Gly Tyr Ile Glu Lys Ser Leu Asp Lys Leu Lys Gly Asn Lys Ser
               245                 250                 255

Tyr Val Asn Met Asp Leu Ser Pro Val Val Glu Cys Met Asp His
               260                 265                 270

Ala Leu Thr Ser Leu Phe Pro Lys Thr His Tyr Ala Ala Gly Lys
               275                 280                 285

Asp Ala Lys Ile Phe Trp Ile Pro Leu Ser His Met Pro Ala Ala
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290 295 300

Leu Gln Asp Phe Leu Leu Leu Lys Gln Lys Ala Glu Leu Ala Asn
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Pro Lys Ala Val

<210> 21
<211> 1849
<212> DNA
<213> Homo Sapien

<400> 21
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acggaaggtt ttcttcttgg ggaagtaaaa ggtgaagcca agaacagcat 150

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acagggtacc tttagtggtt gccaatctgg gcatgtctga acaactgggt 550

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ggatgtaaac agattaaaac gagaaattga gaaaaggaga ggagcacaga 800

ttcaggcagc aagagagaag aacatccaaa aagaccctca ggagaacatt 850

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cacactgaca ttcctgaagc tagtccagct agtacaccac aaatcattaa 1050

gcataaagcc ttagacttag atgacagatg gcaattcaag agatctcggt 1100

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caagataaag catccaaaat gagcagccca gaaacagatg aagaaattga 1200

aaagatgaag ggttttggtg aatattcacg gtctcctaca ttttgatcct 1250

tttaacctta caaggagatt tttttatttg gctgatgggt aaagccaaac 1300

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aaatttgcaa aacatcatct aaaatttaaa aaaaaaaaaa aaaaaaaaa 1849

<210> 22
<211> 409
<212> PRT
<213> Homo Sapien

<400> 22

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				20				25						30	
Gly	Phe	Leu	Leu	Gly	Glu	Val	Lys	Gly	Glu	Ala	Lys	Asn	Ser	Ile	
				35				40						45	
Thr	Asp	Ser	Gln	Met	Asp	Asp	Val	Glu	Val	Val	Tyr	Thr	Ile	Asp	
				50				55						60	
Ile	Gln	Lys	Tyr	Ile	Pro	Cys	Tyr	Gln	Leu	Phe	Ser	Phe	Tyr	Asn	
				65				70						75	
Ser	Ser	Gly	Glu	Val	Asn	Glu	Gln	Ala	Leu	Lys	Lys	Ile	Leu	Ser	
				80				85						90	
Asn	Val	Lys	Lys	Asn	Val	Val	Gly	Trp	Tyr	Lys	Phe	Arg	Arg	His	
				95				100						105	

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Ser Asp Gln Ile Met Thr Phe Arg Glu Arg Leu Leu His Lys Asn
                110                 115                 120

Leu Gln Glu His Phe Ser Asn Gln Asp Leu Val Phe Leu Leu Leu
                125                 130                 135

Thr Pro Ser Ile Ile Thr Glu Ser Cys Ser Thr His Arg Leu Glu
                140                 145                 150

His Ser Leu Tyr Lys Pro Gln Lys Gly Leu Phe His Arg Val Pro
                155                 160                 165

Leu Val Val Ala Asn Leu Gly Met Ser Glu Gln Leu Gly Tyr Lys
                170                 175                 180

Thr Val Ser Gly Ser Cys Met Ser Thr Gly Phe Ser Arg Ala Val
                185                 190                 195

Gln Thr His Ser Ser Lys Phe Phe Glu Glu Asp Gly Ser Leu Lys
                200                 205                 210

Glu Val His Lys Ile Asn Glu Met Tyr Ala Ser Leu Gln Glu Glu
                215                 220                 225

Leu Lys Ser Ile Cys Lys Lys Val Glu Asp Ser Glu Gln Ala Val
                230                 235                 240

Asp Lys Leu Val Lys Asp Val Asn Arg Leu Lys Arg Glu Ile Glu
                245                 250                 255

Lys Arg Arg Gly Ala Gln Ile Gln Ala Ala Arg Glu Lys Asn Ile
                260                 265                 270

Gln Lys Asp Pro Gln Glu Asn Ile Phe Leu Cys Gln Ala Leu Arg
                275                 280                 285

Thr Phe Phe Pro Asn Ser Glu Phe Leu His Ser Cys Val Met Ser
                290                 295                 300

Leu Lys Asn Arg His Val Ser Lys Ser Ser Cys Asn Tyr Asn His
                305                 310                 315

His Leu Asp Val Val Asp Asn Leu Thr Leu Met Val Glu His Thr
                320                 325                 330

Asp Ile Pro Glu Ala Ser Pro Ala Ser Thr Pro Gln Ile Ile Lys
                335                 340                 345

His Lys Ala Leu Asp Leu Asp Asp Arg Trp Gln Phe Lys Arg Ser
                350                 355                 360

Arg Leu Leu Asp Thr Gln Asp Lys Arg Ser Lys Ala Asn Thr Gly
                365                 370                 375

Ser Ser Asn Gln Asp Lys Ala Ser Lys Met Ser Ser Pro Glu Thr
                380                 385                 390
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Asp Glu Glu Ile Glu Lys Met Lys Gly Phe Gly Glu Tyr Ser Arg
395 400 405

Ser Pro Thr Phe

<210> 23
<211> 2651
<212> DNA
<213> Homo Sapien

<400> 23
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cgccgcccac accctctgcg gtccccgcgg cgcctgccac ccttccctcc 150

ttccccgcgt ccccgcctcg ccggccagtc agcttgccgg gttcgctgcc 200

ccgcgaaacc ccgaggtcac cagcccgcgc ctctgcttcc ctgggccgcg 250

cgccgcctcc acgccctcct tctcccctgg cccggcgcct ggcaccgggg 300

accgttgcct gacgcgaggc ccagctctac ttttcgcccc gcgtctcctc 350

cgcctgctcg cctcttccac caactccaac tccttctccc tccagctcca 400

ctcgctagtc cccgactccg ccagccctcg gcccgctgcc gtagcgccgc 450

ttcccgtccg gtcccaaagg tgggaacgcg tccgccccgg cccgcaccat 500

ggcacggttc ggcttgcccg cgcttctctg caccctggca gtgctcagcg 550

ccgcgctgct ggctgccgag ctcaagtcga aaagttgctc ggaagtgcga 600

cgtctttacg tgtccaaagg cttcaacaag aacgatgccc ccctccacga 650

gatcaacggt gatcatttga agatctgtcc ccagggttct acctgctgct 700

ctcaagagat ggaggagaag tacagcctgc aaagtaaaga tgatttcaaa 750

agtgtggtca gcgaacagtg caatcatttg caagctgtct ttgcttcacg 800

ttacaagaag tttgatgaat tcttcaaaga actacttgaa aatgcagaga 850

aatccctgaa tgatatgttt gtgaagacat atggccattt atacatgcaa 900

aattctgagc tatttaaaga tctcttcgta gagttgaaac gttactacgt 950

ggtgggaaat gtgaacctgg aagaaatgct aaatgacttc tgggctcgcc 1000

tcctggagcg gatgttccgc ctggtgaact cccagtacca ctttacagat 1050

gagtatctgg aatgtgtgag caagtatacg gagcagctga agcccttcgg 1100

agatgtccct cgcaaattga agctccaggt tactcgtgct tttgtagcag 1150

cccgtacttt cgctcaaggc ttagcggttg cgggagatgt cgtgagcaag 1200

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gatctactgc tcccactgcc ggggtctcgt gactgtgaag ccatgttaca 1300

actactgctc aaacatcatg agaggctgtt tggccaacca aggggatctc 1350

gattttgaat ggaacaattt catagatgct atgctgatgg tggcagagag 1400

gctagagggt cctttcaaca ttgaatcggt catggatccc atcgatgtga 1450

agatttctga tgctattatg aacatgcagg ataatagtgt tcaagtgtct 1500

cagaaggttt tccagggatg tggacccccc aagcccctcc cagctggacg 1550

aatttctcgt tccatctctg aaagtgcctt cagtgctcgc ttcagaccac 1600

atcaccccga ggaacgccca accacagcag ctggcactag tttggaccga 1650

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ctcccttccg agcaacgttt gcaacgatga gaggatggct gcaggaaacg 1750

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gcagtgacag gaaatggatt agccaaccag ggcaacaacc cagaggtcca 1850

ggttgacacc agcaaaccag acatactgat ccttcgtcaa atcatggctc 1900

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gacttctttg atatcagtga tgaaagtagt ggagaaggaa gtggaagtgg 2000

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aaagttaaaa ggcaccagtt atcacttttc taccatccta gtgactttgc 2250

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c 2651

<210> 24
<211> 556
<212> PRT
<213> Homo Sapien

<400> 24

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Met Ala Arg Phe Gly Leu Pro Ala Leu Leu Cys Thr Leu Ala Val
  1               5                  10                  15

Leu Ser Ala Ala Leu Leu Ala Ala Glu Leu Lys Ser Lys Ser Cys
                20                  25                  30

Ser Glu Val Arg Arg Leu Tyr Val Ser Lys Gly Phe Asn Lys Asn
            35                  40                  45

Asp Ala Pro Leu His Glu Ile Asn Gly Asp His Leu Lys Ile Cys
                50                  55                  60

Pro Gln Gly Ser Thr Cys Cys Ser Gln Glu Met Glu Glu Lys Tyr
                65                  70                  75

Ser Leu Gln Ser Lys Asp Asp Phe Lys Ser Val Val Ser Glu Gln
                80                  85                  90

Cys Asn His Leu Gln Ala Val Phe Ala Ser Arg Tyr Lys Lys Phe
                95                 100                 105

Asp Glu Phe Phe Lys Glu Leu Leu Glu Asn Ala Glu Lys Ser Leu
               110                 115                 120

Asn Asp Met Phe Val Lys Thr Tyr Gly His Leu Tyr Met Gln Asn
               125                 130                 135

Ser Glu Leu Phe Lys Asp Leu Phe Val Glu Leu Lys Arg Tyr Tyr
               140                 145                 150

Val Val Gly Asn Val Asn Leu Glu Glu Met Leu Asn Asp Phe Trp
               155                 160                 165

Ala Arg Leu Leu Glu Arg Met Phe Arg Leu Val Asn Ser Gln Tyr
               170                 175                 180

His Phe Thr Asp Glu Tyr Leu Glu Cys Val Ser Lys Tyr Thr Glu
               185                 190                 195

Gln Leu Lys Pro Phe Gly Asp Val Pro Arg Lys Leu Lys Leu Gln
               200                 205                 210

Val Thr Arg Ala Phe Val Ala Ala Arg Thr Phe Ala Gln Gly Leu
               215                 220                 225

Ala Val Ala Gly Asp Val Val Ser Lys Val Ser Val Val Asn Pro
```

```
                230                 235                 240

Thr Ala Gln Cys Thr His Ala Leu Leu Lys Met Ile Tyr Cys Ser
                245                 250                 255

His Cys Arg Gly Leu Val Thr Val Lys Pro Cys Tyr Asn Tyr Cys
                260                 265                 270

Ser Asn Ile Met Arg Gly Cys Leu Ala Asn Gln Gly Asp Leu Asp
                275                 280                 285

Phe Glu Trp Asn Asn Phe Ile Asp Ala Met Leu Met Val Ala Glu
                290                 295                 300

Arg Leu Glu Gly Pro Phe Asn Ile Glu Ser Val Met Asp Pro Ile
                305                 310                 315

Asp Val Lys Ile Ser Asp Ala Ile Met Asn Met Gln Asp Asn Ser
                320                 325                 330

Val Gln Val Ser Gln Lys Val Phe Gln Gly Cys Gly Pro Pro Lys
                335                 340                 345

Pro Leu Pro Ala Gly Arg Ile Ser Arg Ser Ile Ser Glu Ser Ala
                350                 355                 360

Phe Ser Ala Arg Phe Arg Pro His His Pro Glu Glu Arg Pro Thr
                365                 370                 375

Thr Ala Ala Gly Thr Ser Leu Asp Arg Leu Val Thr Asp Val Lys
                380                 385                 390

Glu Lys Leu Lys Gln Ala Lys Lys Phe Trp Ser Ser Leu Pro Ser
                395                 400                 405

Asn Val Cys Asn Asp Glu Arg Met Ala Ala Gly Asn Gly Asn Glu
                410                 415                 420

Asp Asp Cys Trp Asn Gly Lys Gly Lys Ser Arg Tyr Leu Phe Ala
                425                 430                 435

Val Thr Gly Asn Gly Leu Ala Asn Gln Gly Asn Asn Pro Glu Val
                440                 445                 450

Gln Val Asp Thr Ser Lys Pro Asp Ile Leu Ile Leu Arg Gln Ile
                455                 460                 465

Met Ala Leu Arg Val Met Thr Ser Lys Met Lys Asn Ala Tyr Asn
                470                 475                 480

Gly Asn Asp Val Asp Phe Phe Asp Ile Ser Asp Glu Ser Ser Gly
                485                 490                 495

Glu Gly Ser Gly Ser Gly Cys Glu Tyr Gln Gln Cys Pro Ser Glu
                500                 505                 510

Phe Asp Tyr Asn Ala Thr Asp His Ala Gly Lys Ser Ala Asn Glu
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515 520 525

Lys Ala Asp Ser Ala Gly Val Arg Pro Gly Ala Gln Ala Tyr Leu
530 535 540

Leu Thr Val Phe Cys Ile Leu Phe Leu Val Met Gln Arg Glu Trp
545 550 555

Arg

<210> 25
<211> 870
<212> DNA
<213> Homo Sapien

<400> 25
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gctgagtatc ctgacctgag tcatccccag ggatcaggag cctccagcag 100

ggaaccttcc attatattct tcaagcaact tacagctgca ccgacagttg 150

cgatgaaagt tctaatctct tccctcctcc tgttgctgcc actaatgctg 200

atgtccatgg tctctagcag cctgaatcca ggggtcgcca gaggccacag 250

ggaccgaggc caggcttcta ggagatggct ccaggaaggc ggccaagaat 300

gtgagtgcaa agattggttc ctgagagccc cgagaagaaa attcatgaca 350

gtgtctgggc tgccaaagaa gcagtgcccc tgtgatcatt tcaagggcaa 400

tgtgaagaaa acaagacacc aaaggcacca cagaaagcca aacaagcatt 450

ccagagcctg ccagcaattt ctcaaacaat gtcagctaag aagctttgct 500

ctgcctttgt aggagctctg agcgcccact cttccaatta aacattctca 550

gccaagaaga cagtgagcac acctaccaga cactcttctt ctcccacctc 600

actctcccac tgtacccacc cctaaatcat tccagtgctc tcaaaaagca 650

tgtttttcaa gatcattttg tttgttgctc tctctagtgt cttcttctct 700

cgtcagtctt agcctgtgcc ctccccttac ccaggcttag gcttaattac 750

ctgaaagatt ccaggaaact gtagcttcct agctagtgtc atttaacctt 800

aaatgcaatc aggaaagtag caaacagaag tcaataaata tttttaaatg 850

tcaaaaaaaa aaaaaaaaaa 870

<210> 26
<211> 119
<212> PRT
<213> Homo Sapien

<400> 26

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 Met Lys Val Leu Ile Ser Ser Leu Leu Leu Leu Leu Pro Leu Met
   1               5                  10                  15

 Leu Met Ser Met Val Ser Ser Ser Leu Asn Pro Gly Val Ala Arg
                20                  25                  30

 Gly His Arg Asp Arg Gly Gln Ala Ser Arg Arg Trp Leu Gln Glu
                35                  40                  45

 Gly Gly Gln Glu Cys Glu Cys Lys Asp Trp Phe Leu Arg Ala Pro
                50                  55                  60
 Arg Arg Lys Phe Met Thr Val Ser Gly Leu Pro Lys Lys Gln Cys
                65                  70                  75

 Pro Cys Asp His Phe Lys Gly Asn Val Lys Lys Thr Arg His Gln
                80                  85                  90

 Arg His His Arg Lys Pro Asn Lys His Ser Arg Ala Cys Gln Gln
                95                 100                 105

 Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe Ala Leu Pro Leu
               110                 115
```

<210> 27
<211> 1371
<212> DNA
<213> Homo Sapien

<400> 27

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 ggaagcacag ctcagagctg gtctgccatg gacatcctgg tcccactcct 100

 gcagctgctg gtgctgcttc ttaccctgcc cctgcacctc atggctctgc 150

 tgggctgctg gcagcccctg tgcaaaagct acttccccta cctgatggcc 200

 gtgctgactc ccaagagcaa ccgcaagatg gagagcaaga aacgggagct 250

 cttcagccag ataaaggggc ttacaggagc ctccgggaaa gtggccctac 300

 tggagctggg ctgcggaacc ggagccaact ttcagttcta cccaccgggc 350

 tgcagggtca cctgcctaga cccaaatccc cactttgaga agttcctgac 400

 aaagagcatg gctgagaaca ggcacctcca atatgagcgg tttgtggtgg 450

 ctcctggaga ggacatgaga cagctggctg atggctccat ggatgtggtg 500

 gtctgcactc tggtgctgtg ctctgtgcag agcccaagga aggtcctgca 550

 ggaggtccgg agagtactga gaccgggagg tgtgctcttt ttctgggagc 600

 atgtggcaga accatatgga agctgggcct tcatgtggca gcaagttttc 650

 gagcccacct ggaaacacat tggggatggc tgctgcctca ccagagagac 700
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ctggaaggat cttgagaacg cccagttctc cgaaatccaa atggaacgac 750

agcccctcc cttgaagtgg ctacctgttg ggccccacat catgggaaag 800

gctgtcaaac aatctttccc aagctccaag gcactcattt gctccttccc 850

cagcctccaa ttagaacaag ccacccacca gcctatctat cttccactga 900

gagggaccta gcagaatgag agaagacatt catgtaccac ctactagtcc 950

ctctctcccc aacctctgcc agggcaatct ctaacttcaa tcccgccttc 1000

gacagtgaaa aagctctact tctacgctga cccagggagg aaacactagg 1050

accctgttgt atcctcaact gcaagtttct ggactagtct cccaacgttt 1100

gcctcccaat gttgtccctt tccttcgttc ccatggtaaa gctcctctcg 1150

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tcatggtgcc tgcatccctg ccaagccccc ctgaccctct ctccccacta 1250

ccaccttctt cctgagctgg gggcaccagg gagaatcaga gatgctgggg 1300

atgccagagc aagactcaaa gaggcagagg ttttgttctc aaatattttt 1350

taataaatag acgaaaccac g 1371

<210> 28
<211> 277
<212> PRT
<213> Homo Sapien

<400> 28

Met Asp Ile Leu Val Pro Leu Leu Gln Leu Leu Val Leu Leu Leu
1 5 10 15

Thr Leu Pro Leu His Leu Met Ala Leu Leu Gly Cys Trp Gln Pro
20 25 30

Leu Cys Lys Ser Tyr Phe Pro Tyr Leu Met Ala Val Leu Thr Pro
35 40 45

Lys Ser Asn Arg Lys Met Glu Ser Lys Lys Arg Glu Leu Phe Ser
50 55 60

Gln Ile Lys Gly Leu Thr Gly Ala Ser Gly Lys Val Ala Leu Leu
65 70 75

Glu Leu Gly Cys Gly Thr Gly Ala Asn Phe Gln Phe Tyr Pro Pro
80 85 90

Gly Cys Arg Val Thr Cys Leu Asp Pro Asn Pro His Phe Glu Lys
95 100 105

Phe Leu Thr Lys Ser Met Ala Glu Asn Arg His Leu Gln Tyr Glu

```
                110                 115                 120

Arg Phe Val Val Ala Pro Gly Glu Asp Met Arg Gln Leu Ala Asp
                125                 130                 135

Gly Ser Met Asp Val Val Val Cys Thr Leu Val Leu Cys Ser Val
                140                 145                 150

Gln Ser Pro Arg Lys Val Leu Gln Glu Val Arg Arg Val Leu Arg
                155                 160                 165

Pro Gly Gly Val Leu Phe Phe Trp Glu His Val Ala Glu Pro Tyr
                170                 175                 180

Gly Ser Trp Ala Phe Met Trp Gln Gln Val Phe Glu Pro Thr Trp
                185                 190                 195

Lys His Ile Gly Asp Gly Cys Cys Leu Thr Arg Glu Thr Trp Lys
                200                 205                 210

Asp Leu Glu Asn Ala Gln Phe Ser Glu Ile Gln Met Glu Arg Gln
                215                 220                 225

Pro Pro Pro Leu Lys Trp Leu Pro Val Gly Pro His Ile Met Gly
                230                 235                 240

Lys Ala Val Lys Gln Ser Phe Pro Ser Ser Lys Ala Leu Ile Cys
                245                 250                 255

Ser Phe Pro Ser Leu Gln Leu Glu Gln Ala Thr His Gln Pro Ile
                260                 265                 270

Tyr Leu Pro Leu Arg Gly Thr
                275
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<210> 29
<211> 494
<212> DNA
<213> Homo Sapien

<400> 29

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caatgtttgc ctatccacct cccccaagcc cctttaccta tgctgctgct 50

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gactggtcgg tgcccagaaa gtctcttctg ccactgacgc ccccatcagg 150

gattgggcct tctttccccc ttcctttctg tgtctcctgc ctcatcggcc 200

tgccatgacc tgcagccaag cccagccccg tggggaaggg gagaaagtgg 250

gggatggcta agaaagctgg gagataggga acagaagagg gtagtgggtg 300

ggctaggggg gctgccttat ttaaagtggt tgtttatgat tcttatacta 350

atttatacaa agatattaag gccctgttca ttaagaaatt gttcccttcc 400
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cctgtgttca atgtttgtaa agattgttct gtgtaaatat gtctttataa 450

taaacagtta aaagctgaaa aaaaaaaaaa aaaaaaaaaa aaaa 494

<210> 30
<211> 73
<212> PRT
<213> Homo Sapien

<400> 30
Met Leu Leu Leu Thr Leu Leu Leu Leu Leu Leu Leu Leu Lys Gly
1 5 10 15

Ser Cys Leu Glu Trp Gly Leu Val Gly Ala Gln Lys Val Ser Ser
20 25 30

Ala Thr Asp Ala Pro Ile Arg Asp Trp Ala Phe Phe Pro Pro Ser
35 40 45

Phe Leu Cys Leu Leu Pro His Arg Pro Ala Met Thr Cys Ser Gln
50 55 60
Ala Gln Pro Arg Gly Glu Gly Glu Lys Val Gly Asp Gly
65 70

<210> 31
<211> 1660
<212> DNA
<213> Homo Sapien

<400> 31
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tgtccctcaa acacctgagt gctactccct atttgcatct gttttgataa 150

atgatgttga caccctccac cgaattctaa gtggaatcat gtcgggaaga 200

gatacaatcc ttggcctgtg tatcctcgca ttagccttgt ctttggccat 250

gatgtttacc ttcagattca tcaccaccct tctggttcac attttcattt 300

cattggttat tttgggattg ttgtttgtct gcggtgtttt atggtggctg 350

tattatgact ataccaacga cctcagcata gaattggaca cagaaaggga 400

aaatatgaag tgcgtgctgg ggtttgctat cgtatccaca ggcatcacgg 450

cagtgctgct cgtcttgatt tttgttctca gaaagagaat aaaattgaca 500

gttgagcttt tccaaatcac aaataaagcc atcagcagtg ctcccttcct 550

gctgttccag ccactgtgga catttgccat cctcattttc ttctgggtcc 600

tctgggtggc tgtgctgctg agcctgggaa ctgcaggagc tgcccaggtt 650

atggaaggcg gccaagtgga atataagccc ctttcgggca ttcggtacat 700

gtggtcgtac catttaattg gcctcatctg gactagtgaa ttcatccttg 750

cgtgccagca aatgactata gctggggcag tggttacttg ttatttcaac 800

agaagtaaaa atgatcctcc tgatcatccc atcctttcgt ctctctccat 850

tctcttcttc taccatcaag gaaccgttgt gaaagggtca tttttaatct 900

ctgtggtgag gattccgaga atcattgtca tgtacatgca aaacgcactg 950

aaagaacagc agcatggtgc attgtccagg tacctgttcc gatgctgcta 1000

ctgctgtttc tggtgtcttg acaaatacct gctccatctc aaccagaatg 1050

catatactac aactgctatt aatgggacag atttctgtac atcagcaaaa 1100

gatgcattca aaatcttgtc caagaactca agtcacttta catctattaa 1150

ctgctttgga gacttcataa tttttctagg aaaggtgtta gtggtgtgtt 1200

tcactgtttt tggaggactc atggctttta actacaatcg ggcattccag 1250

gtgtgggcag tccctctgtt attggtagct ttttttgcct acttagtagc 1300
ccatagtttt ttatctgtgt ttgaaactgt gctggatgca cttttcctgt 1350

gttttgctgt tgatctggaa acaaatgatg gatcgtcaga aaagccctac 1400

tttatggatc aagaatttct gagtttcgta aaaaggagca acaaattaaa 1450

caatgcaagg gcacagcagg acaagcactc attaaggaat gaggagggaa 1500

cagaactcca ggccattgtg agatagatac ccatttaggt atctgtacct 1550

ggaaaacatt tccttctaag agccatttac agaatagaag atgagaccac 1600

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<210> 32
<211> 445
<212> PRT
<213> Homo Sapien

<400> 32
Met Ser Gly Arg Asp Thr Ile Leu Gly Leu Cys Ile Leu Ala Leu
1 5 10 15

Ala Leu Ser Leu Ala Met Met Phe Thr Phe Arg Phe Ile Thr Thr
20 25 30

Leu Leu Val His Ile Phe Ile Ser Leu Val Ile Leu Gly Leu Leu
35 40 45

Phe Val Cys Gly Val Leu Trp Trp Leu Tyr Tyr Asp Tyr Thr Asn
50 55 60

```
Asp Leu Ser Ile Glu Leu Asp Thr Glu Arg Glu Asn Met Lys Cys
                 65                  70                  75

Val Leu Gly Phe Ala Ile Val Ser Thr Gly Ile Thr Ala Val Leu
                 80                  85                  90

Leu Val Leu Ile Phe Val Leu Arg Lys Arg Ile Lys Leu Thr Val
                 95                 100                 105

Glu Leu Phe Gln Ile Thr Asn Lys Ala Ile Ser Ser Ala Pro Phe
                110                 115                 120

Leu Leu Phe Gln Pro Leu Trp Thr Phe Ala Ile Leu Ile Phe Phe
                125                 130                 135

Trp Val Leu Trp Val Ala Val Leu Leu Ser Leu Gly Thr Ala Gly
                140                 145                 150

Ala Ala Gln Val Met Glu Gly Gly Gln Val Glu Tyr Lys Pro Leu
                155                 160                 165

Ser Gly Ile Arg Tyr Met Trp Ser Tyr His Leu Ile Gly Leu Ile
                170                 175                 180

Trp Thr Ser Glu Phe Ile Leu Ala Cys Gln Gln Met Thr Ile Ala
                185                 190                 195
Gly Ala Val Val Thr Cys Tyr Phe Asn Arg Ser Lys Asn Asp Pro
                200                 205                 210

Pro Asp His Pro Ile Leu Ser Ser Leu Ser Ile Leu Phe Phe Tyr
                215                 220                 225

His Gln Gly Thr Val Val Lys Gly Ser Phe Leu Ile Ser Val Val
                230                 235                 240

Arg Ile Pro Arg Ile Ile Val Met Tyr Met Gln Asn Ala Leu Lys
                245                 250                 255

Glu Gln Gln His Gly Ala Leu Ser Arg Tyr Leu Phe Arg Cys Cys
                260                 265                 270

Tyr Cys Cys Phe Trp Cys Leu Asp Lys Tyr Leu Leu His Leu Asn
                275                 280                 285

Gln Asn Ala Tyr Thr Thr Thr Ala Ile Asn Gly Thr Asp Phe Cys
                290                 295                 300

Thr Ser Ala Lys Asp Ala Phe Lys Ile Leu Ser Lys Asn Ser Ser
                305                 310                 315

His Phe Thr Ser Ile Asn Cys Phe Gly Asp Phe Ile Ile Phe Leu
                320                 325                 330

Gly Lys Val Leu Val Val Cys Phe Thr Val Phe Gly Gly Leu Met
                335                 340                 345
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Ala Phe Asn Tyr Asn Arg Ala Phe Gln Val Trp Ala Val Pro Leu
                350                 355                 360

Leu Leu Val Ala Phe Phe Ala Tyr Leu Val Ala His Ser Phe Leu
                365                 370                 375

Ser Val Phe Glu Thr Val Leu Asp Ala Leu Phe Leu Cys Phe Ala
                380                 385                 390

Val Asp Leu Glu Thr Asn Asp Gly Ser Ser Glu Lys Pro Tyr Phe
                395                 400                 405

Met Asp Gln Glu Phe Leu Ser Phe Val Lys Arg Ser Asn Lys Leu
                410                 415                 420

Asn Asn Ala Arg Ala Gln Gln Asp Lys His Ser Leu Arg Asn Glu
                425                 430                 435

Glu Gly Thr Glu Leu Gln Ala Ile Val Arg
                440                 445
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<210> 33
<211> 2773
<212> DNA
<213> Homo Sapien

<400> 33

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aagggaaaaa gaatattcat tctgtgtggt gaaaattttt tgaaaaaaaa 150

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<210> 34
<211> 678
<212> PRT
<213> Homo Sapien

<400> 34

Met	Arg	Thr	Val	Val	Leu	Thr	Met	Lys	Ala	Ser	Val	Ile	Glu	Met
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Phe	Leu	Val	Leu	Leu	Val	Thr	Gly	Val	His	Ser	Asn	Lys	Glu	Thr
				20				25						30
Ala	Lys	Lys	Ile	Lys	Arg	Pro	Lys	Phe	Thr	Val	Pro	Gln	Ile	Asn
				35				40						45
Cys	Asp	Val	Lys	Ala	Gly	Lys	Ile	Ile	Asp	Pro	Glu	Phe	Ile	Val
				50				55						60
Lys	Cys	Pro	Ala	Gly	Cys	Gln	Asp	Pro	Lys	Tyr	His	Val	Tyr	Gly
				65				70						75
Thr	Asp	Val	Tyr	Ala	Ser	Tyr	Ser	Ser	Val	Cys	Gly	Ala	Ala	Val
				80				85						90
His	Ser	Gly	Val	Leu	Asp	Asn	Ser	Gly	Gly	Lys	Ile	Leu	Val	Arg
				95				100						105
Lys	Val	Ala	Gly	Gln	Ser	Gly	Tyr	Lys	Gly	Ser	Tyr	Ser	Asn	Gly
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Val	Gln	Ser	Leu	Ser	Leu	Pro	Arg	Trp	Arg	Glu	Ser	Phe	Ile	Val
				125				130						135

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Leu Glu Ser Lys Pro Lys Lys Gly Val Thr Tyr Pro Ser Ala Leu
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Thr Tyr Ser Ser Ser Lys Ser Pro Ala Ala Gln Ala Gly Glu Thr
                155                 160                 165

Thr Lys Ala Tyr Gln Arg Pro Pro Ile Pro Gly Thr Thr Ala Gln
                170                 175                 180

Pro Val Thr Leu Met Gln Leu Leu Ala Val Thr Val Ala Val Ala
                185                 190                 195

Thr Pro Thr Thr Leu Pro Arg Pro Ser Pro Ser Ala Ala Ser Thr
                200                 205                 210

Thr Ser Ile Pro Arg Pro Gln Ser Val Gly His Arg Ser Gln Glu
                215                 220                 225

Met Asp Leu Trp Ser Thr Ala Thr Tyr Thr Ser Ser Gln Asn Arg
                230                 235                 240

Pro Arg Ala Asp Pro Gly Ile Gln Arg Gln Asp Pro Ser Gly Ala
                245                 250                 255

Ala Phe Gln Lys Pro Val Gly Ala Asp Val Ser Leu Gly Leu Val
                260                 265                 270

Pro Lys Glu Glu Leu Ser Thr Gln Ser Leu Glu Pro Val Ser Leu
                275                 280                 285

Gly Asp Pro Asn Cys Lys Ile Asp Leu Ser Phe Leu Ile Asp Gly
                290                 295                 300

Ser Thr Ser Ile Gly Lys Arg Arg Phe Arg Ile Gln Lys Gln Leu
                305                 310                 315

Leu Ala Asp Val Ala Gln Ala Leu Asp Ile Gly Pro Ala Gly Pro
                320                 325                 330

Leu Met Gly Val Val Gln Tyr Gly Asp Asn Pro Ala Thr His Phe
                335                 340                 345

Asn Leu Lys Thr His Thr Asn Ser Arg Asp Leu Lys Thr Ala Ile
                350                 355                 360

Glu Lys Ile Thr Gln Arg Gly Gly Leu Ser Asn Val Gly Arg Ala
                365                 370                 375

Ile Ser Phe Val Thr Lys Asn Phe Phe Ser Lys Ala Asn Gly Asn
                380                 385                 390

Arg Ser Gly Ala Pro Asn Val Val Val Val Met Val Asp Gly Trp
                395                 400                 405

Pro Thr Asp Lys Val Glu Glu Ala Ser Arg Leu Ala Arg Glu Ser
                410                 415                 420
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Gly Ile Asn Ile Phe Phe Ile Thr Ile Glu Gly Ala Ala Glu Asn
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Glu Lys Gln Tyr Val Val Glu Pro Asn Phe Ala Asn Lys Ala Val
440 445 450

Cys Arg Thr Asn Gly Phe Tyr Ser Leu His Val Gln Ser Trp Phe
455 460 465

Gly Leu His Lys Thr Leu Gln Pro Leu Val Lys Arg Val Cys Asp
470 475 480

Thr Asp Arg Leu Ala Cys Ser Lys Thr Cys Leu Asn Ser Ala Asp
485 490 495

Ile Gly Phe Val Ile Asp Gly Ser Ser Ser Val Gly Thr Gly Asn
500 505 510

Phe Arg Thr Val Leu Gln Phe Val Thr Asn Leu Thr Lys Glu Phe
515 520 525

Glu Ile Ser Asp Thr Asp Thr Arg Ile Gly Ala Val Gln Tyr Thr
530 535 540

Tyr Glu Gln Arg Leu Glu Phe Gly Phe Asp Lys Tyr Ser Ser Lys
545 550 555

Pro Asp Ile Leu Asn Ala Ile Lys Arg Val Gly Tyr Trp Ser Gly
560 565 570

Gly Thr Ser Thr Gly Ala Ala Ile Asn Phe Ala Leu Glu Gln Leu
575 580 585

Phe Lys Lys Ser Lys Pro Asn Lys Arg Lys Leu Met Ile Leu Ile
590 595 600

Thr Asp Gly Arg Ser Tyr Asp Asp Val Arg Ile Pro Ala Met Ala
605 610 615

Ala His Leu Lys Gly Val Ile Thr Tyr Ala Ile Gly Val Ala Trp
620 625 630

Ala Ala Gln Glu Glu Leu Glu Val Ile Ala Thr His Pro Ala Arg
635 640 645

Asp His Ser Phe Phe Val Asp Glu Phe Asp Asn Leu His Gln Tyr
650 655 660

Val Pro Arg Ile Ile Gln Asn Ile Cys Thr Glu Phe Asn Ser Gln
665 670 675

Pro Arg Asn

<210> 35
<211> 2095
<212> DNA

<213> Homo Sapien

<400> 35

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tactgtggta atatagagaa gaattaaagc aagaaaatct gaaaa 2095

<210> 36
<211> 331
<212> PRT
<213> Homo Sapien

<400> 36

Met	Ala	Ser	Ala	Leu	Trp	Thr	Val	Leu	Pro	Ser	Arg	Met	Ser	Leu	
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Arg	Ser	Leu	Lys	Trp	Ser	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Ser	Phe	
			20					25						30	
Phe	Val	Met	Trp	Tyr	Leu	Ser	Leu	Pro	His	Tyr	Asn	Val	Ile	Glu	
			35					40						45	
Arg	Val	Asn	Trp	Met	Tyr	Phe	Tyr	Glu	Tyr	Glu	Pro	Ile	Tyr	Arg	
			50					55						60	
Gln	Asp	Phe	His	Phe	Thr	Leu	Arg	Glu	His	Ser	Asn	Cys	Ser	His	
			65					70						75	
Gln	Asn	Pro	Phe	Leu	Val	Ile	Leu	Val	Thr	Ser	His	Pro	Ser	Asp	
			80					85						90	
Val	Lys	Ala	Arg	Gln	Ala	Ile	Arg	Val	Thr	Trp	Gly	Glu	Lys	Lys	
			95					100						105	

Ser Trp Trp Gly Tyr Glu Val Leu Thr Phe Phe Leu Leu Gly Gln
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Glu Ala Glu Lys Glu Asp Lys Met Leu Ala Leu Ser Leu Glu Asp
125 130 135

Glu His Leu Leu Tyr Gly Asp Ile Ile Arg Gln Asp Phe Leu Asp
140 145 150

Thr Tyr Asn Asn Leu Thr Leu Lys Thr Ile Met Ala Phe Arg Trp
155 160 165

Val Thr Glu Phe Cys Pro Asn Ala Lys Tyr Val Met Lys Thr Asp
170 175 180

Thr Asp Val Phe Ile Asn Thr Gly Asn Leu Val Lys Tyr Leu Leu
185 190 195

Asn Leu Asn His Ser Glu Lys Phe Phe Thr Gly Tyr Pro Leu Ile
200 205 210

Asp Asn Tyr Ser Tyr Arg Gly Phe Tyr Gln Lys Thr His Ile Ser
215 220 225

Tyr Gln Glu Tyr Pro Phe Lys Val Phe Pro Pro Tyr Cys Ser Gly
230 235 240

Leu Gly Tyr Ile Met Ser Arg Asp Leu Val Pro Arg Ile Tyr Glu
245 250 255

Met Met Gly His Val Lys Pro Ile Lys Phe Glu Asp Val Tyr Val
260 265 270

Gly Ile Cys Leu Asn Leu Leu Lys Val Asn Ile His Ile Pro Glu
275 280 285

Asp Thr Asn Leu Phe Phe Leu Tyr Arg Ile His Leu Asp Val Cys
290 295 300

Gln Leu Arg Arg Val Ile Ala Ala His Gly Phe Ser Ser Lys Glu
305 310 315

Ile Ile Thr Phe Trp Gln Val Met Leu Arg Asn Thr Thr Cys His
320 325 330

Tyr

<210> 37
<211> 2846
<212> DNA
<213> Homo Sapien

<400> 37
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<210> 38
<211> 720
<212> PRT
<213> Homo Sapien

<400> 38

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                20                  25                  30

Glu Ala Cys Pro Gly Ala Glu Trp Asn Ile Met Cys Arg Glu Cys
                35                  40                  45

Cys Glu Tyr Asp Gln Ile Glu Cys Val Cys Pro Gly Lys Arg Glu
                50                  55                  60

Val Val Gly Tyr Thr Ile Pro Cys Cys Arg Asn Glu Glu Asn Glu
                65                  70                  75

Cys Asp Ser Cys Leu Ile His Pro Gly Cys Thr Ile Phe Glu Asn
                80                  85                  90

Cys Lys Ser Cys Arg Asn Gly Ser Trp Gly Gly Thr Leu Asp Asp
                95                 100                 105

Phe Tyr Val Lys Gly Phe Tyr Cys Ala Glu Cys Arg Ala Gly Trp
               110                 115                 120

Tyr Gly Gly Asp Cys Met Arg Cys Gly Gln Val Leu Arg Ala Pro
               125                 130                 135

Lys Gly Gln Ile Leu Leu Glu Ser Tyr Pro Leu Asn Ala His Cys
               140                 145                 150

Glu Trp Thr Ile His Ala Lys Pro Gly Phe Val Ile Gln Leu Arg
               155                 160                 165

Phe Val Met Leu Ser Leu Glu Phe Asp Tyr Met Cys Gln Tyr Asp
               170                 175                 180

Tyr Val Glu Val Arg Asp Gly Asp Asn Arg Asp Gly Gln Ile Ile
               185                 190                 195

Lys Arg Val Cys Gly Asn Glu Arg Pro Ala Pro Ile Gln Ser Ile
               200                 205                 210

Gly Ser Ser Leu His Val Leu Phe His Ser Asp Gly Ser Lys Asn
               215                 220                 225

Phe Asp Gly Phe His Ala Ile Tyr Glu Glu Ile Thr Ala Cys Ser
               230                 235                 240

Ser Ser Pro Cys Phe His Asp Gly Thr Cys Val Leu Asp Lys Ala
               245                 250                 255

Gly Ser Tyr Lys Cys Ala Cys Leu Ala Gly Tyr Thr Gly Gln Arg
               260                 265                 270

Cys Glu Asn Leu Leu Glu Glu Arg Asn Cys Ser Asp Pro Gly Gly
               275                 280                 285
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Pro Val Asn Gly Tyr Gln Lys Ile Thr Gly Gly Pro Gly Leu Ile
                290                 295                 300
Asn Gly Arg His Ala Lys Ile Gly Thr Val Val Ser Phe Phe Cys
                305                 310                 315

Asn Asn Ser Tyr Val Leu Ser Gly Asn Glu Lys Arg Thr Cys Gln
                320                 325                 330

Gln Asn Gly Glu Trp Ser Gly Lys Gln Pro Ile Cys Ile Lys Ala
                335                 340                 345

Cys Arg Glu Pro Lys Ile Ser Asp Leu Val Arg Arg Arg Val Leu
                350                 355                 360

Pro Met Gln Val Gln Ser Arg Glu Thr Pro Leu His Gln Leu Tyr
                365                 370                 375

Ser Ala Ala Phe Ser Lys Gln Lys Leu Gln Ser Ala Pro Thr Lys
                380                 385                 390

Lys Pro Ala Leu Pro Phe Gly Asp Leu Pro Met Gly Tyr Gln His
                395                 400                 405

Leu His Thr Gln Leu Gln Tyr Glu Cys Ile Ser Pro Phe Tyr Arg
                410                 415                 420

Arg Leu Gly Ser Ser Arg Arg Thr Cys Leu Arg Thr Gly Lys Trp
                425                 430                 435

Ser Gly Arg Ala Pro Ser Cys Ile Pro Ile Cys Gly Lys Ile Glu
                440                 445                 450

Asn Ile Thr Ala Pro Lys Thr Gln Gly Leu Arg Trp Pro Trp Gln
                455                 460                 465

Ala Ala Ile Tyr Arg Arg Thr Ser Gly Val His Asp Gly Ser Leu
                470                 475                 480

His Lys Gly Ala Trp Phe Leu Val Cys Ser Gly Ala Leu Val Asn
                485                 490                 495

Glu Arg Thr Val Val Val Ala Ala His Cys Val Thr Asp Leu Gly
                500                 505                 510

Lys Val Thr Met Ile Lys Thr Ala Asp Leu Lys Val Val Leu Gly
                515                 520                 525

Lys Phe Tyr Arg Asp Asp Asp Arg Asp Glu Lys Thr Ile Gln Ser
                530                 535                 540

Leu Gln Ile Ser Ala Ile Ile Leu His Pro Asn Tyr Asp Pro Ile
                545                 550                 555

Leu Leu Asp Ala Asp Ile Ala Ile Leu Lys Leu Leu Asp Lys Ala
                560                 565                 570
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Arg Ile Ser Thr Arg Val Gln Pro Ile Cys Leu Ala Ala Ser Arg
575 580 585

Asp Leu Ser Thr Ser Phe Gln Glu Ser His Ile Thr Val Ala Gly
590 595 600

Trp Asn Val Leu Ala Asp Val Arg Ser Pro Gly Phe Lys Asn Asp
605 610 615

Thr Leu Arg Ser Gly Val Val Ser Val Val Asp Ser Leu Leu Cys
620 625 630

Glu Glu Gln His Glu Asp His Gly Ile Pro Val Ser Val Thr Asp
635 640 645

Asn Met Phe Cys Ala Ser Trp Glu Pro Thr Ala Pro Ser Asp Ile
650 655 660

Cys Thr Ala Glu Thr Gly Gly Ile Ala Ala Val Ser Phe Pro Gly
665 670 675

Arg Ala Ser Pro Glu Pro Arg Trp His Leu Met Gly Leu Val Ser
680 685 690

Trp Ser Tyr Asp Lys Thr Cys Ser His Arg Leu Ser Thr Ala Phe
695 700 705

Thr Lys Val Leu Pro Phe Lys Asp Trp Ile Glu Arg Asn Met Lys
710 715 720

<210> 39
<211> 2571
<212> DNA
<213> Homo Sapien

<400> 39
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ttgtgatcta ctgattgtgg gggcatggca aggtttgctt aaaggagctt 150

ggctggtttg ggcccttgta gctgacagaa ggtggccagg gagaatgcag 200

cacactgctc ggagaatgaa ggcgcttctg ttgctggtct tgccttggct 250

cagtcctgct aactacattg acaatgtggg caacctgcac ttcctgtatt 300

cagaactctg taaaggtgcc tcccactacg gcctgaccaa agataggaag 350

aggcgctcac aagatggctg tccagacggc tgtgcgagcc tcacagccac 400

ggctccctcc ccagaggttt ctgcagctgc caccatctcc ttaatgacag 450

acgagcctgg cctagacaac cctgcctacg tgtcctcggc agaggacggg 500

cagccagcaa tcagcccagt ggactctggc cggagcaacc gaactagggc 550

acggcccttt gagagatcca ctattagaag cagatcattt aaaaaaataa 600

atcgagcttt gagtgttctt cgaaggacaa agagcgggag tgcagttgcc 650

aaccatgccg accagggcag ggaaaattct gaaaacacca ctgcccctga 700

agtctttcca aggttgtacc acctgattcc agatggtgaa attaccagca 750

tcaagatcaa tcgagtagat cccagtgaaa gcctctctat taggctggtg 800

ggaggtagcg aaaccccact ggtccatatc attatccaac acatttatcg 850

tgatggggtg atcgccagag acggccggct actgccagga gacatcattc 900

taaaggtcaa cgggatggac atcagcaatg tccctcacaa ctacgctgtg 950

cgtctcctgc ggcagccctg ccaggtgctg tggctgactg tgatgcgtga 1000

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cagcttggaa taaaactggt gcgcaaggtg gatgagcctg gggttttcat 1150

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agaatgaccg tgtgttagcc atcaatggac atgatcttcg atatggcagc 1250

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cgtcgtgtcc cgccaggttc ggcagcggag ccctgacatc tttcaggaag 1350

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gagcatcaca tagagaatgg gatttgccta tctatgtcat cagtgttgag 1550

cccggaggag tcataagcag agatggaaga ataaaaacag gtgacatttt 1600

gttgaatgtg gatggggtcg aactgacaga ggtcagccgg agtgaggcag 1650

tggcattatt gaaaagaaca tcatcctcga tagtactcaa agctttggaa 1700

gtcaaagagt atgagcccca ggaagactgc agcagcccag cagcctgga 1750

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tgtggctgga attaccacgg tgcttgtata actgtaaaga tattgtatta 1850

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caccagcata caatgatgga agaattagat gtggtgatat tcttcttgct 2000

gtcaatggta gaagtacatc aggaatgata catgcttgct tggcaagact 2050

gctgaaagaa cttaaaggaa gaattactct aactattgtt tcttggcctg 2100

gcacttttt atagaatcaa tgatgggtca gaggaaaaca gaaaaatcac 2150

aaataggcta agaagttgaa acactatatt tatcttgtca gtttttatat 2200

ttaaagaaag aatacattgt aaaaatgtca ggaaaagtat gatcatctaa 2250

tgaaagccag ttacacctca gaaaatatga ttccaaaaaa attaaaacta 2300

ctagtttttt ttcagtgtgg aggatttctc attactctac aacattgttt 2350

atatttttc tattcaataa aaagccctaa aacaactaaa atgattgatt 2400

tgtatacccc actgaattca agctgattta aatttaaaat ttggtatatg 2450

ctgaagtctg ccaagggtac attatggcca tttttaattt acagctaaaa 2500

tatttttaa aatgcattgc tgagaaacgt tgctttcatc aaacaagaat 2550

aaatattttt cagaagttaa a 2571

<210> 40
<211> 632
<212> PRT
<213> Homo Sapien

<400> 40

Met	Lys	Ala	Leu	Leu	Leu	Leu	Val	Leu	Pro	Trp	Leu	Ser	Pro	Ala	
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Asn	Tyr	Ile	Asp	Asn	Val	Gly	Asn	Leu	His	Phe	Leu	Tyr	Ser	Glu	
				20				25						30	
Leu	Cys	Lys	Gly	Ala	Ser	His	Tyr	Gly	Leu	Thr	Lys	Asp	Arg	Lys	
				35				40						45	
Arg	Arg	Ser	Gln	Asp	Gly	Cys	Pro	Asp	Gly	Cys	Ala	Ser	Leu	Thr	
				50				55						60	
Ala	Thr	Ala	Pro	Ser	Pro	Glu	Val	Ser	Ala	Ala	Ala	Thr	Ile	Ser	
				65				70						75	
Leu	Met	Thr	Asp	Glu	Pro	Gly	Leu	Asp	Asn	Pro	Ala	Tyr	Val	Ser	
				80				85						90	
Ser	Ala	Glu	Asp	Gly	Gln	Pro	Ala	Ile	Ser	Pro	Val	Asp	Ser	Gly	
				95				100						105	
Arg	Ser	Asn	Arg	Thr	Arg	Ala	Arg	Pro	Phe	Glu	Arg	Ser	Thr	Ile	
				110				115						120	
Arg	Ser	Arg	Ser	Phe	Lys	Lys	Ile	Asn	Arg	Ala	Leu	Ser	Val	Leu	

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                125                 130                 135

Arg Arg Thr Lys Ser Gly Ser Ala Val Ala Asn His Ala Asp Gln
                140                 145                 150

Gly Arg Glu Asn Ser Glu Asn Thr Thr Ala Pro Glu Val Phe Pro
                155                 160                 165

Arg Leu Tyr His Leu Ile Pro Asp Gly Glu Ile Thr Ser Ile Lys
                170                 175                 180

Ile Asn Arg Val Asp Pro Ser Glu Ser Leu Ser Ile Arg Leu Val
                185                 190                 195

Gly Gly Ser Glu Thr Pro Leu Val His Ile Ile Ile Gln His Ile
                200                 205                 210

Tyr Arg Asp Gly Val Ile Ala Arg Asp Gly Arg Leu Leu Pro Gly
                215                 220                 225

Asp Ile Ile Leu Lys Val Asn Gly Met Asp Ile Ser Asn Val Pro
                230                 235                 240

His Asn Tyr Ala Val Arg Leu Leu Arg Gln Pro Cys Gln Val Leu
                245                 250                 255

Trp Leu Thr Val Met Arg Glu Gln Lys Phe Arg Ser Arg Asn Asn
                260                 265                 270

Gly Gln Ala Pro Asp Ala Tyr Arg Pro Arg Asp Asp Ser Phe His
                275                 280                 285

Val Ile Leu Asn Lys Ser Ser Pro Glu Glu Gln Leu Gly Ile Lys
                290                 295                 300

Leu Val Arg Lys Val Asp Glu Pro Gly Val Phe Ile Phe Asn Val
                305                 310                 315

Leu Asp Gly Gly Val Ala Tyr Arg His Gly Gln Leu Glu Glu Asn
                320                 325                 330

Asp Arg Val Leu Ala Ile Asn Gly His Asp Leu Arg Tyr Gly Ser
                335                 340                 345

Pro Glu Ser Ala Ala His Leu Ile Gln Ala Ser Glu Arg Arg Val
                350                 355                 360

His Leu Val Val Ser Arg Gln Val Arg Gln Arg Ser Pro Asp Ile
                365                 370                 375

Phe Gln Glu Ala Gly Trp Asn Ser Asn Gly Ser Trp Ser Pro Gly
                380                 385                 390

Pro Gly Glu Arg Ser Asn Thr Pro Lys Pro Leu His Pro Thr Ile
                395                 400                 405

Thr Cys His Glu Lys Val Val Asn Ile Gln Lys Asp Pro Gly Glu
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410 415 420

Ser Leu Gly Met Thr Val Ala Gly Gly Ala Ser His Arg Glu Trp
425 430 435

Asp Leu Pro Ile Tyr Val Ile Ser Val Glu Pro Gly Gly Val Ile
440 445 450

Ser Arg Asp Gly Arg Ile Lys Thr Gly Asp Ile Leu Leu Asn Val
455 460 465

Asp Gly Val Glu Leu Thr Glu Val Ser Arg Ser Glu Ala Val Ala
470 475 480

Leu Leu Lys Arg Thr Ser Ser Ser Ile Val Leu Lys Ala Leu Glu
485 490 495

Val Lys Glu Tyr Glu Pro Gln Glu Asp Cys Ser Ser Pro Ala Ala
500 505 510

Leu Asp Ser Asn His Asn Met Ala Pro Pro Ser Asp Trp Ser Pro
515 520 525

Ser Trp Val Met Trp Leu Glu Leu Pro Arg Cys Leu Tyr Asn Cys
530 535 540

Lys Asp Ile Val Leu Arg Arg Asn Thr Ala Gly Ser Leu Gly Phe
545 550 555

Cys Ile Val Gly Gly Tyr Glu Glu Tyr Asn Gly Asn Lys Pro Phe
560 565 570

Phe Ile Lys Ser Ile Val Glu Gly Thr Pro Ala Tyr Asn Asp Gly
575 580 585

Arg Ile Arg Cys Gly Asp Ile Leu Leu Ala Val Asn Gly Arg Ser
590 595 600

Thr Ser Gly Met Ile His Ala Cys Leu Ala Arg Leu Leu Lys Glu
605 610 615

Leu Lys Gly Arg Ile Thr Leu Thr Ile Val Ser Trp Pro Gly Thr
620 625 630

Phe Leu

<210> 41
<211> 1964
<212> DNA
<213> Homo Sapien

<400> 41
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caaattccga ttactgttgc tgttgacttt gtgcctgaca gtggttgggt 200

gggccaccag taactacttc gtgggtgcca ttcaagagat tcctaaagca 250

aaggagttca tggctaattt ccataagacc ctcattttgg ggaagggaaa 300

aactctgact aatgaagcat ccacgaagaa ggtagaactt gacaactgtc 350

cttctgtgtc tccttacctc agaggccaga gcaagctcat tttcaaacca 400

gatctcactt tggaagaggt acaggcagaa aatcccaaag tgtccagagg 450

ccggtatcgc cctcaggaat gtaaagcttt acagagggtc gccatcctcg 500

ttccccaccg gaacagagag aaacacctga tgtacctgct ggaacatctg 550

catcccttcc tgcagaggca gcagctggat tatggcatct acgtcatcca 600

ccaggctgaa ggtaaaaagt ttaatcgagc caaactcttg aatgtgggct 650
atctagaagc cctcaaggaa gaaaattggg actgctttat attccacgat 700

gtggacctgg tacccgagaa tgactttaac ctttacaagt gtgaggagca 750

tcccaagcat ctggtggttg gcaggaacag cactgggtac aggttacgtt 800

acagtggata ttttgggggt gttactgccc taagcagaga gcagtttttc 850

aaggtgaatg gattctctaa caactactgg ggatggggag gcgaagacga 900

tgacctcaga ctcagggttg agctccaaag aatgaaaatt tcccggcccc 950

tgcctgaagt gggtaaatat acaatggtct tccacactag agacaaaggc 1000

aatgaggtga acgcagaacg gatgaagctc ttacaccaag tgtcacgagt 1050

ctggagaaca gatgggttga gtagttgttc ttataaatta gtatctgtgg 1100

aacacaatcc tttatatatc aacatcacag tggatttctg gtttggtgca 1150

tgaccctgga tcttttggtg atgtttggaa gaactgattc tttgtttgca 1200

ataattttgg cctagagact tcaaatagta gcacacatta agaacctgtt 1250

acagctcatt gttgagctga atttttcctt tttgtatttt cttagcagag 1300

ctcctggtga tgtagagtat aaaacagttg taacaagaca gctttcttag 1350

tcattttgat catgagggtt aaatattgta atatggatac ttgaaggact 1400

ttatataaaa ggatgactca aaggataaaa tgaacgctat ttgaggactc 1450

tggttgaagg agatttattt aaatttgaag taatatatta tgggataaaa 1500

ggccacagga aataagactg ctgaatgtct gagagaacca gagttgttct 1550

cgtccaaggt agaaaggtac gaagatacaa tactgttatt catttatcct 1600

gtacaatcat ctgtgaagtg gtggtgtcag gtgagaaggc gtccacaaaa 1650

gaggggagaa aaggcgacga atcaggacac agtgaacttg ggaatgaaga 1700

ggtagcagga gggtggagtg tcggctgcaa aggcagcagt agctgagctg 1750

gttgcaggtg ctgatagcct tcaggggagg acctgcccag gtatgccttc 1800

cagtgatgcc caccagagaa tacattctct attagttttt aaagagtttt 1850

tgtaaaatga ttttgtacaa gtaggatatg aattagcagt ttacaagttt 1900

acatattaac taataataaa tatgtctatc aaatacctct gtagtaaaat 1950

gtgaaaaagc aaaa 1964

<210> 42
<211> 344
<212> PRT
<213> Homo Sapien

<400> 42

Met	Gly	Phe	Asn	Leu	Thr	Phe	His	Leu	Ser	Tyr	Lys	Phe	Arg	Leu	
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Leu	Leu	Leu	Leu	Thr	Leu	Cys	Leu	Thr	Val	Val	Gly	Trp	Ala	Thr	
				20				25						30	
Ser	Asn	Tyr	Phe	Val	Gly	Ala	Ile	Gln	Glu	Ile	Pro	Lys	Ala	Lys	
				35				40						45	
Glu	Phe	Met	Ala	Asn	Phe	His	Lys	Thr	Leu	Ile	Leu	Gly	Lys	Gly	
				50				55						60	
Lys	Thr	Leu	Thr	Asn	Glu	Ala	Ser	Thr	Lys	Lys	Val	Glu	Leu	Asp	
				65				70						75	
Asn	Cys	Pro	Ser	Val	Ser	Pro	Tyr	Leu	Arg	Gly	Gln	Ser	Lys	Leu	
				80				85						90	
Ile	Phe	Lys	Pro	Asp	Leu	Thr	Leu	Glu	Glu	Val	Gln	Ala	Glu	Asn	
				95				100						105	
Pro	Lys	Val	Ser	Arg	Gly	Arg	Tyr	Arg	Pro	Gln	Glu	Cys	Lys	Ala	
				110				115						120	
Leu	Gln	Arg	Val	Ala	Ile	Leu	Val	Pro	His	Arg	Asn	Arg	Glu	Lys	
				125				130						135	
His	Leu	Met	Tyr	Leu	Leu	Glu	His	Leu	His	Pro	Phe	Leu	Gln	Arg	
				140				145						150	
Gln	Gln	Leu	Asp	Tyr	Gly	Ile	Tyr	Val	Ile	His	Gln	Ala	Glu	Gly	
				155				160						165	

Lys Lys Phe Asn Arg Ala Lys Leu Leu Asn Val Gly Tyr Leu Glu
170 175 180

Ala Leu Lys Glu Glu Asn Trp Asp Cys Phe Ile Phe His Asp Val
185 190 195

Asp Leu Val Pro Glu Asn Asp Phe Asn Leu Tyr Lys Cys Glu Glu
200 205 210

His Pro Lys His Leu Val Val Gly Arg Asn Ser Thr Gly Tyr Arg
215 220 225

Leu Arg Tyr Ser Gly Tyr Phe Gly Gly Val Thr Ala Leu Ser Arg
230 235 240

Glu Gln Phe Phe Lys Val Asn Gly Phe Ser Asn Asn Tyr Trp Gly
245 250 255

Trp Gly Gly Glu Asp Asp Asp Leu Arg Leu Arg Val Glu Leu Gln
260 265 270

Arg Met Lys Ile Ser Arg Pro Leu Pro Glu Val Gly Lys Tyr Thr
275 280 285

Met Val Phe His Thr Arg Asp Lys Gly Asn Glu Val Asn Ala Glu
290 295 300

Arg Met Lys Leu Leu His Gln Val Ser Arg Val Trp Arg Thr Asp
305 310 315

Gly Leu Ser Ser Cys Ser Tyr Lys Leu Val Ser Val Glu His Asn
320 325 330

Pro Leu Tyr Ile Asn Ile Thr Val Asp Phe Trp Phe Gly Ala
335 340

<210> 43
<211> 485
<212> DNA
<213> Homo Sapien

<400> 43
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gcaaccccag gacagagctg gagccagggc cagctggatg cccatgttcc 200

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ggctgctgtc atcgatcaaa gtgtgggatg tgctgcaaga cgtagaacct 300

acctgccctg cccccgtccc ctcccttcct tatttattcc tgctgcccca 350

gaacataggt cttggaataa aatggctggt tcttttgttt tccaaaaaaa 400

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 450

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 485

<210> 44
<211> 84
<212> PRT
<213> Homo Sapien

<400> 44
Met Ala Leu Ser Ser Gln Ile Trp Ala Ala Cys Leu Leu Leu Leu
1 5 10 15

Leu Leu Leu Ala Ser Leu Thr Ser Gly Ser Val Phe Pro Gln Gln
20 25 30

Thr Gly Gln Leu Ala Glu Leu Gln Pro Gln Asp Arg Ala Gly Ala
35 40 45

Arg Ala Ser Trp Met Pro Met Phe Gln Arg Arg Arg Arg Arg Asp
50 55 60

Thr His Phe Pro Ile Cys Ile Phe Cys Cys Gly Cys Cys His Arg
65 70 75

Ser Lys Cys Gly Met Cys Cys Lys Thr
80

<210> 45
<211> 1076
<212> DNA
<213> Homo Sapien

<400> 45
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caacatgcct caccctcatc tatatccttt ggcagctcac agggtcagca 100

gcctctggac ccgtgaaaga gctggtcggt tccgttggtg gggccgtgac 150

tttccccctg aagtccaaag taaagcaagt tgactctatt gtctggacct 200

tcaacacaac ccctcttgtc accatacagc cagaaggggg cactatcata 250

gtgacccaaa atcgtaatag ggagagagta gacttcccag atggaggcta 300

ctccctgaag ctcagcaaac tgaagaagaa tgactcaggg atctactatg 350

tggggatata cagctcatca ctccagcagc cctccaccca ggagtacgtg 400

ctgcatgtct acgagcacct gtcaaagcct aaagtcacca tgggtctgca 450

gagcaataag aatggcacct gtgtgaccaa tctgacatgc tgcatggaac 500

atggggaaga ggatgtgatt tatacctgga aggccctggg gcaagcagcc 550

aatgagtccc ataatgggtc catcctcccc atctcctgga gatggggaga 600

aagtgatatg accttcatct gcgttgccag gaaccctgtc agcagaaact 650

tctcaagccc catccttgcc aggaagctct gtgaaggtgc tgctgatgac 700

ccagattcct ccatggtcct cctgtgtctc ctgttggtgc ccctcctgct 750

cagtctcttt gtactggggc tatttctttg gtttctgaag agagagagac 800

aagaagagta cattgaagag aagaagagag tggacatttg tcgggaaact 850

cctaacatat gcccccattc tggagagaac acagagtacg acacaatccc 900

tcacactaat agaacaatcc taaaggaaga tccagcaaat acggtttact 950

ccactgtgga aataccgaaa aagatggaaa atccccactc actgctcacg 1000

atgccagaca caccaaggct atttgcctat gagaatgtta tctagacagc 1050

agtgcactcc cctaagtctc tgctca 1076

<210> 46
<211> 335
<212> PRT
<213> Homo Sapien

<400> 46

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Met Ala Gly Ser Pro Thr Cys Leu Thr Leu Ile Tyr Ile Leu Trp
  1               5                  10                  15

Gln Leu Thr Gly Ser Ala Ala Ser Gly Pro Val Lys Glu Leu Val
                20                  25                  30
Gly Ser Val Gly Gly Ala Val Thr Phe Pro Leu Lys Ser Lys Val
                35                  40                  45

Lys Gln Val Asp Ser Ile Val Trp Thr Phe Asn Thr Thr Pro Leu
                50                  55                  60

Val Thr Ile Gln Pro Glu Gly Gly Thr Ile Ile Val Thr Gln Asn
                65                  70                  75

Arg Asn Arg Glu Arg Val Asp Phe Pro Asp Gly Gly Tyr Ser Leu
                80                  85                  90

Lys Leu Ser Lys Leu Lys Lys Asn Asp Ser Gly Ile Tyr Tyr Val
                95                 100                 105

Gly Ile Tyr Ser Ser Ser Leu Gln Gln Pro Ser Thr Gln Glu Tyr
               110                 115                 120

Val Leu His Val Tyr Glu His Leu Ser Lys Pro Lys Val Thr Met
               125                 130                 135

Gly Leu Gln Ser Asn Lys Asn Gly Thr Cys Val Thr Asn Leu Thr
               140                 145                 150
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Cys Cys Met Glu His Gly Glu Glu Asp Val Ile Tyr Thr Trp Lys
155 160 165

Ala Leu Gly Gln Ala Ala Asn Glu Ser His Asn Gly Ser Ile Leu
170 175 180

Pro Ile Ser Trp Arg Trp Gly Glu Ser Asp Met Thr Phe Ile Cys
185 190 195

Val Ala Arg Asn Pro Val Ser Arg Asn Phe Ser Ser Pro Ile Leu
200 205 210

Ala Arg Lys Leu Cys Glu Gly Ala Ala Asp Asp Pro Asp Ser Ser
215 220 225

Met Val Leu Leu Cys Leu Leu Leu Val Pro Leu Leu Leu Ser Leu
230 235 240

Phe Val Leu Gly Leu Phe Leu Trp Phe Leu Lys Arg Glu Arg Gln
245 250 255

Glu Glu Tyr Ile Glu Glu Lys Lys Arg Val Asp Ile Cys Arg Glu
260 265 270

Thr Pro Asn Ile Cys Pro His Ser Gly Glu Asn Thr Glu Tyr Asp
275 280 285

Thr Ile Pro His Thr Asn Arg Thr Ile Leu Lys Glu Asp Pro Ala
290 295 300

Asn Thr Val Tyr Ser Thr Val Glu Ile Pro Lys Lys Met Glu Asn
305 310 315

Pro His Ser Leu Leu Thr Met Pro Asp Thr Pro Arg Leu Phe Ala
320 325 330

Tyr Glu Asn Val Ile
335

<210> 47
<211> 766
<212> DNA
<213> Homo Sapien

<400> 47
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gacatcctgc aatggattca gcctgctggt tctactgctg ttaggagtag 100

ttctcaatgc gatacctcta attgtcagct tagttgagga agaccaattt 150

tctcaaaacc ccatctcttg ctttgagtgg tggttcccag gaattatagg 200

agcaggtctg atggccattc cagcaacaac aatgtccttg acagcaagaa 250

aaagagcgtg ctgcaacaac agaactggaa tgtttctttc atcatttttc 300

agtgtgatca cagtcattgg tgctctgtat tgcatgctga tatccatcca 350

ggctctctta aaaggtcctc tcatgtgtaa ttctccaagc aacagtaatg 400

ccaattgtga attttcattg aaaaacatca gtgacattca tccagaatcc 450

ttcaacttgc agtggttttt caatgactct tgtgcacctc ctactggttt 500

caataaaccc accagtaacg acaccatggc gagtggctgg agagcatcta 550

gtttccactt cgattctgaa gaaaacaaac ataggcttat ccacttctca 600

gtatttttag gtctattgct tgttggaatt ctggaggtcc tgtttgggct 650

cagtcagata gtcatcggtt tccttggctg tctgtgtgga gtctctaagc 700

gaagaagtca aattgtgtag tttaatggga ataaaatgta agtatcagta 750

gtttgaaaaa aaaaaa 766

<210> 48
<211> 229
<212> PRT
<213> Homo Sapien

<400> 48

Met	Thr	Cys	Cys	Glu	Gly	Trp	Thr	Ser	Cys	Asn	Gly	Phe	Ser	Leu	
1				5				10						15	
Leu	Val	Leu	Leu	Leu	Leu	Gly	Val	Val	Leu	Asn	Ala	Ile	Pro	Leu	
				20				25						30	
Ile	Val	Ser	Leu	Val	Glu	Glu	Asp	Gln	Phe	Ser	Gln	Asn	Pro	Ile	
				35				40						45	
Ser	Cys	Phe	Glu	Trp	Trp	Phe	Pro	Gly	Ile	Ile	Gly	Ala	Gly	Leu	
				50				55						60	
Met	Ala	Ile	Pro	Ala	Thr	Thr	Met	Ser	Leu	Thr	Ala	Arg	Lys	Arg	
				65				70						75	
Ala	Cys	Cys	Asn	Asn	Arg	Thr	Gly	Met	Phe	Leu	Ser	Ser	Phe	Phe	
				80				85						90	
Ser	Val	Ile	Thr	Val	Ile	Gly	Ala	Leu	Tyr	Cys	Met	Leu	Ile	Ser	
				95				100						105	
Ile	Gln	Ala	Leu	Leu	Lys	Gly	Pro	Leu	Met	Cys	Asn	Ser	Pro	Ser	
				110				115						120	
Asn	Ser	Asn	Ala	Asn	Cys	Glu	Phe	Ser	Leu	Lys	Asn	Ile	Ser	Asp	
				125				130						135	
Ile	His	Pro	Glu	Ser	Phe	Asn	Leu	Gln	Trp	Phe	Phe	Asn	Asp	Ser	
				140				145						150	
Cys	Ala	Pro	Pro	Thr	Gly	Phe	Asn	Lys	Pro	Thr	Ser	Asn	Asp	Thr	

```
                155                 160                 165

 Met Ala Ser Gly Trp Arg Ala Ser Ser Phe His Phe Asp Ser Glu
                170                 175                 180

 Glu Asn Lys His Arg Leu Ile His Phe Ser Val Phe Leu Gly Leu
                185                 190                 195

 Leu Leu Val Gly Ile Leu Glu Val Leu Phe Gly Leu Ser Gln Ile
                200                 205                 210

 Val Ile Gly Phe Leu Gly Cys Leu Cys Gly Val Ser Lys Arg Arg
                215                 220                 225

 Ser Gln Ile Val
```

<210> 49
<211> 636
<212> DNA
<213> Homo Sapien

<400> 49

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 ctgaccaatt gagctgtgag cctggagcag atccgtgggc tgcagacccc 150

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 agagagtgac cctggccctt ctcctactgg caggcctgac tgccttggaa 250

 gccaatgacc catttgccaa taaagacgat cccttctact atgactggaa 300

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 ggatcgcggc agttctgagt ggcaaatgca aatacaagag cagccagaag 400

 cagcacagtc ctgtacctga gaaggccatc ccactcatca ctccaggctc 450

 tgccactact tgctgagcac aggactggcc tccagggatg gcctgaagcc 500
 taacactggc ccccagcacc tcctcccctg ggaggcctta tcctcaagga 550

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 ttctttatga attaaactcg ccccaccacc ccctca 636
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<210> 50
<211> 89
<212> PRT
<213> Homo Sapien

<400> 50

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 Met Glu Arg Val Thr Leu Ala Leu Leu Leu Leu Ala Gly Leu Thr
   1               5                  10                  15
```

Ala Leu Glu Ala Asn Asp Pro Phe Ala Asn Lys Asp Asp Pro Phe
20 25 30

Tyr Tyr Asp Trp Lys Asn Leu Gln Leu Ser Gly Leu Ile Cys Gly
35 40 45

Gly Leu Leu Ala Ile Ala Gly Ile Ala Ala Val Leu Ser Gly Lys
50 55 60

Cys Lys Tyr Lys Ser Ser Gln Lys Gln His Ser Pro Val Pro Glu
65 70 75

Lys Ala Ile Pro Leu Ile Thr Pro Gly Ser Ala Thr Thr Cys
80 85

<210> 51
<211> 1734
<212> DNA
<213> Homo Sapien

<400> 51
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gacccagagg gagggaggac agggagtcgg aaggaggagg acagaggagg 100

gcacagagac gcagagcaag ggcggcaagg aggagaccct ggtgggagga 150

agacactctg gagagagagg gggctgggca gagatgaagt tccaggggcc 200

cctggcctgc ctcctgctgg ccctctgcct gggcagtggg gaggctggcc 250

ccctgcagag cggagaggaa agcactggga caaatattgg ggaggccctt 300

ggacatggcc tgggagacgc cctgagcgaa ggggtgggaa aggccattgg 350

caaagaggcc ggaggggcag ctggctctaa agtcagtgag gcccttggcc 400

aagggaccag agaagcagtt ggcactggag tcaggcaggt tccaggcttt 450

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caacactcag ggagctgtgg cccagcctgg ctatggttca gtgagagcca 850

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ggctccagca actctggggg aggcagcggc tcacagtcgg gcagcagtgg 950

cagtggcagc aatggtgaca acaacaatgg cagcagcagt ggtggcagca 1000

gcagtggcag cagcagtggc agcagcagtg gcggcagcag tggcggcagc 1050

agtggtggca gcagtggcaa cagtggtggc agcagaggtg acagcggcag 1100

tgagtcctcc tggggatcca gcaccggctc ctcctccggc aaccacggtg 1150

ggagcggcgg aggaaatgga cataaacccg ggtgtgaaaa gccagggaat 1200

gaagcccgcg ggagcgggga atctgggatt cagggcttca gaggacaggg 1250

agtttccagc aacatgaggg aaataagcaa agagggcaat cgcctccttg 1300

gaggctctgg agacaattat cgggggcaag ggtcgagctg gggcagtgga 1350

ggaggtgacg ctgttggtgg agtcaatact gtgaactctg agacgtctcc 1400

tgggatgttt aactttgaca ctttctggaa gaattttaaa tccaagctgg 1450

gtttcatcaa ctgggatgcc ataaacaagg accagagaag ctctcgcatc 1500

ccgtgacctc cagacaagga gccaccagat tggatgggag cccccacact 1550

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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1700

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1734

<210> 52
<211> 440
<212> PRT
<213> Homo Sapien

<400> 52

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Met Lys Phe Gln Gly Pro Leu Ala Cys Leu Leu Leu Ala Leu Cys
  1               5                  10                  15

Leu Gly Ser Gly Glu Ala Gly Pro Leu Gln Ser Gly Glu Glu Ser
                20                  25                  30

Thr Gly Thr Asn Ile Gly Glu Ala Leu Gly His Gly Leu Gly Asp
                35                  40                  45
Ala Leu Ser Glu Gly Val Gly Lys Ala Ile Gly Lys Glu Ala Gly
                50                  55                  60

Gly Ala Ala Gly Ser Lys Val Ser Glu Ala Leu Gly Gln Gly Thr
                65                  70                  75

Arg Glu Ala Val Gly Thr Gly Val Arg Gln Val Pro Gly Phe Gly
                80                  85                  90
```

```
Ala Ala Asp Ala Leu Gly Asn Arg Val Gly Glu Ala Ala His Ala
                 95                  100                 105

Leu Gly Asn Thr Gly His Glu Ile Gly Arg Gln Ala Glu Asp Val
                110                 115                 120

Ile Arg His Gly Ala Asp Ala Val Arg Gly Ser Trp Gln Gly Val
                125                 130                 135

Pro Gly His Ser Gly Ala Trp Glu Thr Ser Gly Gly His Gly Ile
                140                 145                 150

Phe Gly Ser Gln Gly Gly Leu Gly Gly Gln Gly Gln Gly Asn Pro
                155                 160                 165

Gly Gly Leu Gly Thr Pro Trp Val His Gly Tyr Pro Gly Asn Ser
                170                 175                 180

Ala Gly Ser Phe Gly Met Asn Pro Gln Gly Ala Pro Trp Gly Gln
                185                 190                 195

Gly Gly Asn Gly Gly Pro Pro Asn Phe Gly Thr Asn Thr Gln Gly
                200                 205                 210

Ala Val Ala Gln Pro Gly Tyr Gly Ser Val Arg Ala Ser Asn Gln
                215                 220                 225

Asn Glu Gly Cys Thr Asn Pro Pro Pro Ser Gly Ser Gly Gly Gly
                230                 235                 240

Ser Ser Asn Ser Gly Gly Gly Ser Gly Ser Gln Ser Gly Ser Ser
                245                 250                 255

Gly Ser Gly Ser Asn Gly Asp Asn Asn Asn Gly Ser Ser Ser Gly
                260                 265                 270

Gly Ser Ser Ser Gly Ser Ser Ser Gly Ser Ser Ser Gly Gly Ser
                275                 280                 285

Ser Gly Gly Ser Ser Gly Gly Ser Ser Gly Asn Ser Gly Gly Ser
                290                 295                 300

Arg Gly Asp Ser Gly Ser Glu Ser Ser Trp Gly Ser Ser Thr Gly
                305                 310                 315

Ser Ser Ser Gly Asn His Gly Gly Ser Gly Gly Gly Asn Gly His
                320                 325                 330

Lys Pro Gly Cys Glu Lys Pro Gly Asn Glu Ala Arg Gly Ser Gly
                335                 340                 345

Glu Ser Gly Ile Gln Gly Phe Arg Gly Gln Gly Val Ser Ser Asn
                350                 355                 360

Met Arg Glu Ile Ser Lys Glu Gly Asn Arg Leu Leu Gly Gly Ser
                365                 370                 375
```

Gly Asp Asn Tyr Arg Gly Gln Gly Ser Ser Trp Gly Ser Gly Gly
380 385 390

Gly Asp Ala Val Gly Gly Val Asn Thr Val Asn Ser Glu Thr Ser
395 400 405

Pro Gly Met Phe Asn Phe Asp Thr Phe Trp Lys Asn Phe Lys Ser
410 415 420

Lys Leu Gly Phe Ile Asn Trp Asp Ala Ile Asn Lys Asp Gln Arg
425 430 435

Ser Ser Arg Ile Pro
440

<210> 53
<211> 1676
<212> DNA
<213> Homo Sapien

<400> 53
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ctgagcctgc cctggctggg cctcagaccg gtggcaatgt ccccatggct 100

actcctgctg ctggttgtgg gctcctggct actcgcccgc atcctggctt 150

ggacctatgc cttctataac aactgccgcc ggctccagtg tttcccacag 200

cccccaaaac ggaactggtt ttggggtcac ctgggcctga tcactcctac 250

agaggagggc ttgaaggact cgacccagat gtcggccacc tattcccagg 300

gctttacggt atggctgggt cccatcatcc ccttcatcgt tttatgccac 350

cctgacacca tccggtctat caccaatgcc tcagctgcca ttgcacccaa 400

ggataatctc ttcatcaggt tcctgaagcc ctggctggga gaagggatac 450

tgctgagtgg cggtgacaag tggagccgcc accgtcggat gctgacgccc 500

gccttccatt tcaacatcct gaagtcctat ataacgatct tcaacaagag 550

tgcaaacatc atgcttgaca agtggcagca cctggcctca gagggcagca 600

gtcgtctgga catgtttgag cacatcagcc tcatgacctt ggacagtcta 650

cagaaatgca tcttcagctt tgacagccat tgtcaggaga ggcccagtga 700

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agaggctgac accttcatgt ttggaggcca tgacaccacg gccagtggcc 1050

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tgtaggcttg cagtgacttt ctgacccatc cacctgtttt tttgcagatt 1650

gtcatgaata aaacggtgct gtcaaa 1676

<210> 54
<211> 524
<212> PRT
<213> Homo Sapien

<400> 54

Met	Ser	Leu	Leu	Ser	Leu	Pro	Trp	Leu	Gly	Leu	Arg	Pro	Val	Ala
1				5				10					15	

Met	Ser	Pro	Trp	Leu	Leu	Leu	Leu	Leu	Val	Val	Gly	Ser	Trp	Leu
			20					25					30	

Leu	Ala	Arg	Ile	Leu	Ala	Trp	Thr	Tyr	Ala	Phe	Tyr	Asn	Asn	Cys
			35					40					45	

Arg	Arg	Leu	Gln	Cys	Phe	Pro	Gln	Pro	Pro	Lys	Arg	Asn	Trp	Phe
			50					55					60	

Trp	Gly	His	Leu	Gly	Leu	Ile	Thr	Pro	Thr	Glu	Glu	Gly	Leu	Lys
			65					70					75	

Asp	Ser	Thr	Gln	Met	Ser	Ala	Thr	Tyr	Ser	Gln	Gly	Phe	Thr	Val
			80					85					90	

Trp	Leu	Gly	Pro	Ile	Ile	Pro	Phe	Ile	Val	Leu	Cys	His	Pro	Asp
			95					100					105	

```
Thr Ile Arg Ser Ile Thr Asn Ala Ser Ala Ala Ile Ala Pro Lys
                110                 115                 120

Asp Asn Leu Phe Ile Arg Phe Leu Lys Pro Trp Leu Gly Glu Gly
                125                 130                 135

Ile Leu Leu Ser Gly Gly Asp Lys Trp Ser Arg His Arg Arg Met
                140                 145                 150

Leu Thr Pro Ala Phe His Phe Asn Ile Leu Lys Ser Tyr Ile Thr
                155                 160                 165

Ile Phe Asn Lys Ser Ala Asn Ile Met Leu Asp Lys Trp Gln His
                170                 175                 180

Leu Ala Ser Glu Gly Ser Ser Arg Leu Asp Met Phe Glu His Ile
                185                 190                 195

Ser Leu Met Thr Leu Asp Ser Leu Gln Lys Cys Ile Phe Ser Phe
                200                 205                 210

Asp Ser His Cys Gln Glu Arg Pro Ser Glu Tyr Ile Ala Thr Ile
                215                 220                 225

Leu Glu Leu Ser Ala Leu Val Glu Lys Arg Ser Gln His Ile Leu
                230                 235                 240

Gln His Met Asp Phe Leu Tyr Tyr Leu Ser His Asp Gly Arg Arg
                245                 250                 255

Phe His Arg Ala Cys Arg Leu Val His Asp Phe Thr Asp Ala Val
                260                 265                 270

Ile Arg Glu Arg Arg Arg Thr Leu Pro Thr Gln Gly Ile Asp Asp
                275                 280                 285

Phe Phe Lys Asp Lys Ala Lys Ser Lys Thr Leu Asp Phe Ile Asp
                290                 295                 300

Val Leu Leu Leu Ser Lys Asp Glu Asp Gly Lys Ala Leu Ser Asp
                305                 310                 315

Glu Asp Ile Arg Ala Glu Ala Asp Thr Phe Met Phe Gly Gly His
                320                 325                 330

Asp Thr Thr Ala Ser Gly Leu Ser Trp Val Leu Tyr Asn Leu Ala
                335                 340                 345

Arg His Pro Glu Tyr Gln Glu Arg Cys Arg Gln Glu Val Gln Glu
                350                 355                 360

Leu Leu Lys Asp Arg Asp Pro Lys Glu Ile Glu Trp Asp Asp Leu
                365                 370                 375

Ala Gln Leu Pro Phe Leu Thr Met Cys Val Lys Glu Ser Leu Arg
                380                 385                 390
```

```
Leu His Pro Pro Ala Pro Phe Ile Ser Arg Cys Cys Thr Gln Asp
                395                 400                 405

Ile Val Leu Pro Asp Gly Arg Val Ile Pro Lys Gly Ile Thr Cys
                410                 415                 420

Leu Ile Asp Ile Ile Gly Val His His Asn Pro Thr Val Trp Pro
                425                 430                 435

Asp Pro Glu Val Tyr Asp Pro Phe Arg Phe Asp Pro Glu Asn Ser
                440                 445                 450

Lys Gly Arg Ser Pro Leu Ala Phe Ile Pro Phe Ser Ala Gly Pro
                455                 460                 465

Arg Asn Cys Ile Gly Gln Ala Phe Ala Met Ala Glu Met Lys Val
                470                 475                 480

Val Leu Ala Leu Met Leu Leu His Phe Arg Phe Leu Pro Asp His
                485                 490                 495

Thr Glu Pro Arg Arg Lys Leu Glu Leu Ile Met Arg Ala Glu Gly
                500                 505                 510

Gly Leu Trp Leu Arg Val Glu Pro Leu Asn Val Gly Leu Gln
                515                 520
```

<210> 55
<211> 644
<212> DNA
<213> Homo Sapien

<400> 55

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tgtgttttgc acttaccctg tgttctgcct tttggtggca taacaaggga 150

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tgtgtcttgc ataattcatg gccagtttta tgaagctttg gaaggcacta 300

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cagtagcaca ggatgagaag tgggttctgt atcttgtgga gtggaatctt 500

cctcatgtac ctgtttcctc tctggatgtt gtcccactga attcccatga 550

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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 644

<210> 56
<211> 77
<212> PRT
<213> Homo Sapien
<400> 56

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Met Gly Pro Val Lys Gln Leu Lys Arg Met Phe Glu Pro Thr Arg
  1               5                  10                  15

Leu Ile Ala Thr Ile Met Val Leu Leu Cys Phe Ala Leu Thr Leu
                20                  25                  30

Cys Ser Ala Phe Trp Trp His Asn Lys Gly Leu Ala Leu Ile Phe
                35                  40                  45

Cys Ile Leu Gln Ser Leu Ala Leu Thr Trp Tyr Ser Leu Ser Phe
                50                  55                  60

Ile Pro Phe Ala Arg Asp Ala Val Lys Lys Cys Phe Ala Val Cys
                65                  70                  75

Leu Ala
```

<210> 57
<211> 3334
<212> DNA
<213> Homo Sapien

<400> 57

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cccagaccga gttccagtac tttgagtcga aggggctccc tgccgagctg 150

aagtccattt tcaagctcag tgtcttcatc ccctcccagg aattctccac 200

ctaccgccag tggaagcaga aaattgtaca agctggagat aaggaccttg 250

atgggcagct agactttgaa gaatttgtcc attatctcca agatcatgag 300

aagaagctga ggctggtgtt taagattttg gacaaaaaga atgatggacg 350

cattgacgcg caggagatca tgcagtccct gcgggacttg ggagtcaaga 400

tatctgaaca gcaggcagaa aaaattctca agagcatgga taaaaacggc 450

acgatgacca tcgactggaa cgagtggaga gactaccacc tcctccaccc 500

cgtggaaaac atccccgaga tcatcctcta ctggaagcat tccacgatct 550

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ctggcctgtg gcaccatgtc cagtacctgt ggccagctgg ccagctaccc 1250

cctggcccta gtcaggaccc ggatgcaggc gcaagcctct attgagggcg 1300

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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 3334

<210> 58
<211> 469
<212> PRT
<213> Homo Sapien

<400> 58
Met Leu Cys Leu Cys Leu Tyr Val Pro Val Ile Gly Glu Ala Gln

```
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Thr Glu Phe Gln Tyr Phe Glu Ser Lys Gly Leu Pro Ala Glu Leu
                 20                  25                  30

Lys Ser Ile Phe Lys Leu Ser Val Phe Ile Pro Ser Gln Glu Phe
                 35                  40                  45

Ser Thr Tyr Arg Gln Trp Lys Gln Lys Ile Val Gln Ala Gly Asp
                 50                  55                  60

Lys Asp Leu Asp Gly Gln Leu Asp Phe Glu Glu Phe Val His Tyr
                 65                  70                  75

Leu Gln Asp His Glu Lys Lys Leu Arg Leu Val Phe Lys Ile Leu
                 80                  85                  90

Asp Lys Lys Asn Asp Gly Arg Ile Asp Ala Gln Glu Ile Met Gln
                 95                 100                 105

Ser Leu Arg Asp Leu Gly Val Lys Ile Ser Glu Gln Gln Ala Glu
                110                 115                 120

Lys Ile Leu Lys Ser Met Asp Lys Asn Gly Thr Met Thr Ile Asp
                125                 130                 135

Trp Asn Glu Trp Arg Asp Tyr His Leu Leu His Pro Val Glu Asn
                140                 145                 150

Ile Pro Glu Ile Ile Leu Tyr Trp Lys His Ser Thr Ile Phe Asp
                155                 160                 165

Val Gly Glu Asn Leu Thr Val Pro Asp Glu Phe Thr Val Glu Glu
                170                 175                 180

Arg Gln Thr Gly Met Trp Trp Arg His Leu Val Ala Gly Gly Gly
                185                 190                 195

Ala Gly Ala Val Ser Arg Thr Cys Thr Ala Pro Leu Asp Arg Leu
                200                 205                 210

Lys Val Leu Met Gln Val His Ala Ser Arg Ser Asn Asn Met Gly
                215                 220                 225

Ile Val Gly Gly Phe Thr Gln Met Ile Arg Glu Gly Gly Ala Arg
                230                 235                 240

Ser Leu Trp Arg Gly Asn Gly Ile Asn Val Leu Lys Ile Ala Pro
                245                 250                 255

Glu Ser Ala Ile Lys Phe Met Ala Tyr Glu Gln Ile Lys Arg Leu
                260                 265                 270

Val Gly Ser Asp Gln Glu Thr Leu Arg Ile His Glu Arg Leu Val
                275                 280                 285

Ala Gly Ser Leu Ala Gly Ala Ile Ala Gln Ser Ser Ile Tyr Pro
```

290 295 300

Met Glu Val Leu Lys Thr Arg Met Ala Leu Arg Lys Thr Gly Gln
305 310 315

Tyr Ser Gly Met Leu Asp Cys Ala Arg Arg Ile Leu Ala Arg Glu
320 325 330

Gly Val Ala Ala Phe Tyr Lys Gly Tyr Val Pro Asn Met Leu Gly
335 340 345

Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val Tyr Glu Thr Leu
350 355 360

Lys Asn Ala Trp Leu Gln His Tyr Ala Val Asn Ser Ala Asp Pro
365 370 375

Gly Val Phe Val Leu Leu Ala Cys Gly Thr Met Ser Ser Thr Cys
380 385 390

Gly Gln Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met
395 400 405

Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser
410 415 420

Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu
425 430 435

Tyr Arg Gly Leu Ala Pro Asn Phe Met Lys Val Ile Pro Ala Val
440 445 450

Ser Ile Ser Tyr Val Val Tyr Glu Asn Leu Lys Ile Thr Leu Gly
455 460 465

Val Gln Ser Arg

<210> 59
<211> 1658
<212> DNA
<213> Homo Sapien

<400> 59
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gcatcatcat tattctggct ggagcaattg cactcatcat tggctttggt 150

atttcaggga gacactccat cacagtcact actgtcgcct cagctgggaa 200

cattggggag gatggaatcc tgagctgcac ttttgaacct gacatcaaac 250

tttctgatat cgtgatacaa tggctgaagg aaggtgtttt aggcttggtc 300

catgagttca aagaaggcaa agatgagctg tcggagcagg atgaaatgtt 350

cagaggccgg acagcagtgt ttgctgatca agtgatagtt ggcaatgcct 400

ctttgcggct gaaaaacgtg caactcacag atgctggcac ctacaaatgt 450

tatatcatca cttctaaagg caaggggaat gctaaccttg agtataaaac 500

tggagccttc agcatgccgg aagtgaatgt ggactataat gccagctcag 550

agaccttgcg gtgtgaggct ccccgatggt tcccccagcc cacagtggtc 600

tgggcatccc aagttgacca gggagccaac ttctcggaag tctccaatac 650

cagctttgag ctgaactctg agaatgtgac catgaaggtt gtgtctgtgc 700

tctacaatgt tacgatcaac aacacatact cctgtatgat tgaaaatgac 750

attgccaaag caacagggga tatcaaagtg acagaatcgg agatcaaaag 800

gcggagtcac ctacagctgc taaactcaaa ggcttctctg tgtgtctctt 850

ctttctttgc catcagctgg gcacttctgc ctctcagccc ttacctgatg 900

ctaaaataat gtgccttggc cacaaaaaag catgcaaagt cattgttaca 950

acagggatct acagaactat ttcaccacca gatatgacct agttttatat 1000

ttctgggagg aaatgaattc atatctagaa gtctggagtg agcaaacaag 1050

agcaagaaac aaaaagaagc caaaagcaga aggctccaat atgaacaaga 1100

taaatctatc ttcaaagaca tattagaagt tgggaaaata attcatgtga 1150

actagacaag tgtgttaaga gtgataagta aaatgcacgt ggagacaagt 1200

gcatccccag atctcaggga cctccccctg cctgtcacct ggggagtgag 1250

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tgtaatgttg ctctgaggaa gcccctggaa agtctatccc aacatatcca 1350

catcttatat tccacaaatt aagctgtagt atgtacccta agacgctgct 1400

aattgactgc cacttcgcaa ctcaggggcg gctgcatttt agtaatgggt 1450

caaatgattc acttttttatg atgcttccaa aggtgccttg gcttctcttc 1500

ccaactgaca aatgccaaag ttgagaaaaa tgatcataat tttagcataa 1550

acagagcagt cggggacacc gattttataa ataaactgag caccttcttt 1600

ttaaacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650

aaaaaaaa 1658

<210> 60
<211> 282

<212> PRT
<213> Homo Sapien

<400> 60

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 Met Ala Ser Leu Gly Gln Ile Leu Phe Trp Ser Ile Ile Ser Ile
   1               5                  10                  15

 Ile Ile Ile Leu Ala Gly Ala Ile Ala Leu Ile Ile Gly Phe Gly
                20                  25                  30

 Ile Ser Gly Arg His Ser Ile Thr Val Thr Thr Val Ala Ser Ala
                35                  40                  45

 Gly Asn Ile Gly Glu Asp Gly Ile Leu Ser Cys Thr Phe Glu Pro
                50                  55                  60

 Asp Ile Lys Leu Ser Asp Ile Val Ile Gln Trp Leu Lys Glu Gly
                65                  70                  75

 Val Leu Gly Leu Val His Glu Phe Lys Glu Gly Lys Asp Glu Leu
                80                  85                  90

 Ser Glu Gln Asp Glu Met Phe Arg Gly Arg Thr Ala Val Phe Ala
                95                 100                 105
 Asp Gln Val Ile Val Gly Asn Ala Ser Leu Arg Leu Lys Asn Val
               110                 115                 120

 Gln Leu Thr Asp Ala Gly Thr Tyr Lys Cys Tyr Ile Ile Thr Ser
               125                 130                 135

 Lys Gly Lys Gly Asn Ala Asn Leu Glu Tyr Lys Thr Gly Ala Phe
               140                 145                 150

 Ser Met Pro Glu Val Asn Val Asp Tyr Asn Ala Ser Ser Glu Thr
               155                 160                 165

 Leu Arg Cys Glu Ala Pro Arg Trp Phe Pro Gln Pro Thr Val Val
               170                 175                 180

 Trp Ala Ser Gln Val Asp Gln Gly Ala Asn Phe Ser Glu Val Ser
               185                 190                 195

 Asn Thr Ser Phe Glu Leu Asn Ser Glu Asn Val Thr Met Lys Val
               200                 205                 210

 Val Ser Val Leu Tyr Asn Val Thr Ile Asn Asn Thr Tyr Ser Cys
               215                 220                 225

 Met Ile Glu Asn Asp Ile Ala Lys Ala Thr Gly Asp Ile Lys Val
               230                 235                 240

 Thr Glu Ser Glu Ile Lys Arg Arg Ser His Leu Gln Leu Leu Asn
               245                 250                 255

 Ser Lys Ala Ser Leu Cys Val Ser Ser Phe Phe Ala Ile Ser Trp
               260                 265                 270
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Ala Leu Leu Pro Leu Ser Pro Tyr Leu Met Leu Lys
275 280

<210> 61
<211> 1617
<212> DNA
<213> Homo Sapien

<400> 61
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gagctgcagg acaagcacca ggagcccctc cgggtagcta ctaccctgga 100

ccccccaata gtggagggca gtatggtagt gggctacccc ctggtggtgg 150

ttatgggggt cctgcccctg gagggcctta tggaccacca gctggtggag 200

ggccctatgg acaccccaat cctgggatgt tcccctctgg aactccagga 250

ggaccatatg gcggtgcagc tcccgggggc ccctatggtc agccacctcc 300

aagttcctac ggtgcccagc agcctgggct ttatggacag ggtggcgccc 350

ctcccaatgt ggatcctgag gcctactcct ggttccagtc ggtggactca 400

gatcacagtg gctatatctc catgaaggag ctaaagcagg ccctggtcaa 450

ctgcaattgg tcttcattca atgatgagac ctgcctcatg atgataaaca 500

tgtttgacaa gaccaagtca ggccgcatcg atgtctacgg cttctcagcc 550

ctgtggaaat tcatccagca gtggaagaac ctcttccagc agtatgaccg 600

ggaccgctcg ggctccatta gctacacaga gctgcagcaa gctctgtccc 650

aaatgggcta caacctgagc ccccagttca cccagcttct ggtctcccgc 700

tactgcccac gctctgccaa tcctgccatg cagcttgacc gcttcatcca 750

ggtgtgcacc cagctgcagg tgctgacaga ggccttccgg gagaaggaca 800

cagctgtaca aggcaacatc cggctcagct tcgaggactt cgtcaccatg 850

acagcttctc ggatgctatg acccaaccat ctgtggagag tggagtgcac 900

cagggacctt tcctggcttc ttagagtgag agaagtatgt ggacatctct 950

tcttttcctg tccctctaga agaacattct cccttgcttg atgcaacact 1000

gttccaaaag agggtggaga gtcctgcatc atagccacca aatagtgagg 1050

accggggctg aggccacaca gataggggcc tgatggagga gaggatagaa 1100

gttgaatgtc ctgatggcca tgagcagttg agtggcacag cctggcacca 1150

ggagcaggtc cttgtaatgg agttagtgtc cagtcagctg agctccaccc 1200

tgatgccagt ggtgagtgtt catcggcctg ttaccgttag tacctgtgtt 1250

ccctcaccag gccatcctgt caaacgagcc cattttctcc aaagtggaat 1300

ctgaccaagc atgagagaga tctgtctatg ggaccagtgg cttggattct 1350

gccacaccca taaatccttg tgtgttaact tctagctgcc tggggctggc 1400

cctgctcaga caaatctgct ccctgggcat ctttggccag gcttctgccc 1450

cctgcagctg ggacccctca cttgcctgcc atgctctgct cggcttcagt 1500

ctccaggaga cagtggtcac ctctccctgc caatactttt tttaatttgc 1550

attttttttc atttggggcc aaaagtccag tgaaattgta agcttcaata 1600

aaaggatgaa actctga 1617

<210> 62
<211> 284
<212> PRT
<213> Homo Sapien

<400> 62

Met	Ala	Ser	Tyr	Pro	Tyr	Arg	Gln	Gly	Cys	Pro	Gly	Ala	Ala	Gly
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Gln	Ala	Pro	Gly	Ala	Pro	Pro	Gly	Ser	Tyr	Tyr	Pro	Gly	Pro	Pro
				20					25					30	
Asn	Ser	Gly	Gly	Gln	Tyr	Gly	Ser	Gly	Leu	Pro	Pro	Gly	Gly	Gly
				35					40					45	
Tyr	Gly	Gly	Pro	Ala	Pro	Gly	Gly	Pro	Tyr	Gly	Pro	Pro	Ala	Gly
				50					55					60	
Gly	Gly	Pro	Tyr	Gly	His	Pro	Asn	Pro	Gly	Met	Phe	Pro	Ser	Gly
				65					70					75	
Thr	Pro	Gly	Gly	Pro	Tyr	Gly	Gly	Ala	Ala	Pro	Gly	Gly	Pro	Tyr
				80					85					90	
Gly	Gln	Pro	Pro	Pro	Ser	Ser	Tyr	Gly	Ala	Gln	Gln	Pro	Gly	Leu
				95					100					105	
Tyr	Gly	Gln	Gly	Gly	Ala	Pro	Pro	Asn	Val	Asp	Pro	Glu	Ala	Tyr
				110					115					120	
Ser	Trp	Phe	Gln	Ser	Val	Asp	Ser	Asp	His	Ser	Gly	Tyr	Ile	Ser
				125					130					135	
Met	Lys	Glu	Leu	Lys	Gln	Ala	Leu	Val	Asn	Cys	Asn	Trp	Ser	Ser
				140					145					150	
Phe	Asn	Asp	Glu	Thr	Cys	Leu	Met	Met	Ile	Asn	Met	Phe	Asp	Lys
				155					160					165	

Thr Lys Ser Gly Arg Ile Asp Val Tyr Gly Phe Ser Ala Leu Trp
170 175 180

Lys Phe Ile Gln Gln Trp Lys Asn Leu Phe Gln Gln Tyr Asp Arg
185 190 195

Asp Arg Ser Gly Ser Ile Ser Tyr Thr Glu Leu Gln Gln Ala Leu
200 205 210

Ser Gln Met Gly Tyr Asn Leu Ser Pro Gln Phe Thr Gln Leu Leu
215 220 225

Val Ser Arg Tyr Cys Pro Arg Ser Ala Asn Pro Ala Met Gln Leu
230 235 240

Asp Arg Phe Ile Gln Val Cys Thr Gln Leu Gln Val Leu Thr Glu
245 250 255

Ala Phe Arg Glu Lys Asp Thr Ala Val Gln Gly Asn Ile Arg Leu
260 265 270

Ser Phe Glu Asp Phe Val Thr Met Thr Ala Ser Arg Met Leu
275 280

<210> 63
<211> 1234
<212> DNA
<213> Homo Sapien

<400> 63
caggatgcag ggccgcgtgg cagggagctg cgctcctctg ggcctgctcc 50

tggtctgtct tcatctccca ggcctctttg cccggagcat cggtgttgtg 100
gaggagaaag tttcccaaaa cttcgggacc aacttgcctc agctcggaca 150

accttcctcc actggccccc ctaactctga acatccgcag cccgctctgg 200

accctaggtc taatgacttg gcaagggttc ctctgaagct cagcgtgcct 250

ccatcagatg gcttcccacc tgcaggaggt tctgcagtgc agaggtggcc 300

tccatcgtgg gggctgcctg ccatggattc ctggcccccc gaggatcctt 350

ggcagatgat ggctgctgcg gctgaggacc gcctggggga agcgctgcct 400

gaagaactct cttacctctc cagtgctgcg gccctcgctc cgggcagtgg 450

ccctttgcct ggggagtctt ctcccgatgc cacaggcctc tcacctgagg 500

cttcactcct ccaccaggac tcggagtcca gacgactgcc ccgttctaat 550

tcactgggag ccgggggaaa aatcctttcc caacgccctc cctggtctct 600

catccacagg gttctgcctg atcacccctg gggtaccctg aatcccagtg 650

tgtcctgggg aggtggaggc cctgggactg gttggggaac gaggcccatg 700

ccacaccctg agggaatctg gggtatcaat aatcaacccc caggtaccag 750

ctggggaaat attaatcggt atccaggagg cagctgggga aatattaatc 800

ggtatccagg aggcagctgg gggaatatta atcggtatcc aggaggcagc 850

tgggggaata ttcatctata cccaggtatc aataacccat ttcctcctgg 900

agttctccgc cctcctggct cttcttggaa catcccagct ggcttcccta 950

atcctccaag ccctaggttg cagtggggct agagcacgat agagggaaac 1000

ccaacattgg gagttagagt cctgctcccg ccccttgctg tgtgggctca 1050

atccaggccc tgttaacatg tttccagcac tatccccact tttcagtgcc 1100

tcccctgctc atctccaata aaataaaagc acttatgaaa aaaaaaaaaa 1150

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1200

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1234

<210> 64
<211> 325
<212> PRT
<213> Homo Sapien

<400> 64

Met	Gln	Gly	Arg	Val	Ala	Gly	Ser	Cys	Ala	Pro	Leu	Gly	Leu	Leu
1				5				10						15
Leu	Val	Cys	Leu	His	Leu	Pro	Gly	Leu	Phe	Ala	Arg	Ser	Ile	Gly
				20				25						30
Val	Val	Glu	Glu	Lys	Val	Ser	Gln	Asn	Phe	Gly	Thr	Asn	Leu	Pro
				35				40						45
Gln	Leu	Gly	Gln	Pro	Ser	Ser	Thr	Gly	Pro	Ser	Asn	Ser	Glu	His
				50				55						60
Pro	Gln	Pro	Ala	Leu	Asp	Pro	Arg	Ser	Asn	Asp	Leu	Ala	Arg	Val
				65				70						75
Pro	Leu	Lys	Leu	Ser	Val	Pro	Pro	Ser	Asp	Gly	Phe	Pro	Pro	Ala
				80				85						90
Gly	Gly	Ser	Ala	Val	Gln	Arg	Trp	Pro	Pro	Ser	Trp	Gly	Leu	Pro
				95				100						105
Ala	Met	Asp	Ser	Trp	Pro	Pro	Glu	Asp	Pro	Trp	Gln	Met	Met	Ala
				110				115						120
Ala	Ala	Ala	Glu	Asp	Arg	Leu	Gly	Glu	Ala	Leu	Pro	Glu	Glu	Leu
				125				130						135
Ser	Tyr	Leu	Ser	Ser	Ala	Ala	Ala	Leu	Ala	Pro	Gly	Ser	Gly	Pro
				140				145						150

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Leu Pro Gly Glu Ser Ser Pro Asp Ala Thr Gly Leu Ser Pro Glu
                155                 160                 165

Ala Ser Leu Leu His Gln Asp Ser Glu Ser Arg Arg Leu Pro Arg
                170                 175                 180

Ser Asn Ser Leu Gly Ala Gly Gly Lys Ile Leu Ser Gln Arg Pro
                185                 190                 195

Pro Trp Ser Leu Ile His Arg Val Leu Pro Asp His Pro Trp Gly
                200                 205                 210

Thr Leu Asn Pro Ser Val Ser Trp Gly Gly Gly Gly Pro Gly Thr
                215                 220                 225

Gly Trp Gly Thr Arg Pro Met Pro His Pro Glu Gly Ile Trp Gly
                230                 235                 240

Ile Asn Asn Gln Pro Pro Gly Thr Ser Trp Gly Asn Ile Asn Arg
                245                 250                 255

Tyr Pro Gly Gly Ser Trp Gly Asn Ile Asn Arg Tyr Pro Gly Gly
                260                 265                 270

Ser Trp Gly Asn Ile Asn Arg Tyr Pro Gly Gly Ser Trp Gly Asn
                275                 280                 285

Ile His Leu Tyr Pro Gly Ile Asn Asn Pro Phe Pro Pro Gly Val
                290                 295                 300

Leu Arg Pro Pro Gly Ser Ser Trp Asn Ile Pro Ala Gly Phe Pro
                305                 310                 315

Asn Pro Pro Ser Pro Arg Leu Gln Trp Gly
                320                 325
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<210> 65
<211> 422
<212> DNA
<213> Homo Sapien

<400> 65
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gcagctcaca tggaacaggg ccgggtatga ctttgcaact gaagctgaag 150

gagtcttttc tgacaaattc ctcctatgag tccagcttcc tggaattgct 200

tgaaaagctc tgcctcctcc tccatctccc ttcagggacc agcgtcaccc 250

tccaccatgc aagatctcaa caccatgttg tctgcaacac atgacagcca 300

ttgaagcctg tgtccttctt ggcccgggct tttgggccgg ggatgcagga 350

ggcaggcccc gaccctgtct ttcagcaggc ccccaccctc ctgagtggca 400

ataaataaaa ttcggtatgc tg 422

<210> 66
<211> 78
<212> PRT
<213> Homo Sapien

<400> 66

Met	Gly	Ser	Gly	Leu	Pro	Leu	Val	Leu	Leu	Leu	Thr	Leu	Leu	Gly
1				5				10						15

Ser	Ser	His	Gly	Thr	Gly	Pro	Gly	Met	Thr	Leu	Gln	Leu	Lys	Leu
				20				25						30

Lys	Glu	Ser	Phe	Leu	Thr	Asn	Ser	Ser	Tyr	Glu	Ser	Ser	Phe	Leu
				35				40						45

Glu	Leu	Leu	Glu	Lys	Leu	Cys	Leu	Leu	Leu	His	Leu	Pro	Ser	Gly
				50				55						60

Thr	Ser	Val	Thr	Leu	His	His	Ala	Arg	Ser	Gln	His	His	Val	Val
				65				70						75

Cys Asn Thr

<210> 67
<211> 744
<212> DNA
<213> Homo Sapien

<400> 67
acggaccgag ggttcgaggg agggacacgg accaggaacc tgagctaggt 50

caaagacgcc cgggccaggt gccccgtcgc aggtgcccct ggccggagat 100

gcggtaggag gggcgagcgc gagaagcccc ttcctcggcg ctgccaaccc 150

gccacccagc ccatggcgaa ccccgggctg gggctgcttc tggcgctggg 200

cctgccgttc ctgctggccc gctggggccg agcctggggg caaatacaga 250
ccacttctgc aaatgagaat agcactgttt tgccttcatc caccagctcc 300

agctccgatg gcaacctgcg tccggaagcc atcactgcta tcatcgtggt 350

cttctccctc ttggctgcct tgctcctggc tgtggggctg gcactgttgg 400

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gggcagtcag atccacccag tgcttaatag cagggaagaa ggtacttcaa 650

agactctgcc cctgaggtca agagaggatg gggctattca cttttatata 700

tttatataaa attagtagtg agatgtaaaa aaaaaaaaaa aaaa 744

<210> 68
<211> 123
<212> PRT
<213> Homo Sapien

<400> 68
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Phe Leu Leu Ala Arg Trp Gly Arg Ala Trp Gly Gln Ile Gln Thr
20 25 30

Thr Ser Ala Asn Glu Asn Ser Thr Val Leu Pro Ser Ser Thr Ser
35 40 45

Ser Ser Ser Asp Gly Asn Leu Arg Pro Glu Ala Ile Thr Ala Ile
50 55 60

Ile Val Val Phe Ser Leu Leu Ala Ala Leu Leu Leu Ala Val Gly
65 70 75

Leu Ala Leu Leu Val Arg Lys Leu Arg Glu Lys Arg Gln Thr Glu
80 85 90

Gly Thr Tyr Arg Pro Ser Ser Glu Glu Gln Phe Ser His Ala Ala
95 100 105

Glu Ala Arg Ala Pro Gln Asp Ser Lys Glu Thr Val Gln Gly Cys
110 115 120

Leu Pro Ile

<210> 69
<211> 3265
<212> DNA
<213> Homo Sapien

<400> 69
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cctcttagtt ctgtgcctgc tgcaccagtc aaatacttcc ttcattaagc 100

tgaataataa tggctttgaa gatattgtca ttgttataga tcctagtgtg 150

ccagaagatg aaaaaataat tgaacaaata gaggatatgg tgactacagc 200

ttctacgtac ctgtttgaag ccacagaaaa aagatttttt ttcaaaaatg 250

tatctatatt aattcctgag aattggaagg aaaatcctca gtacaaaagg 300

ccaaaacatg aaaaccataa acatgctgat gttatagttg caccacctac 350

actcccaggt agagatgaac catacaccaa gcagttcaca gaatgtggag 400

agaaaggcga atacattcac ttcacccctg accttctact tggaaaaaaa 450

caaaatgaat atggaccacc aggcaaactg tttgtccatg agtgggctca 500

cctccggtgg ggagtgtttg atgagtacaa tgaagatcag cctttctacc 550

gtgctaagtc aaaaaaaatc gaagcaacaa ggtgttccgc aggtatctct 600

ggtagaaata gagtttataa gtgtcaagga ggcagctgtc ttagtagagc 650

atgcagaatt gattctacaa caaaactgta tggaaaagat tgtcaattct 700

ttcctgataa agtacaaaca gaaaaagcat ccataatgtt tatgcaaagt 750

attgattctg ttgttgaatt ttgtaacgaa aaaacccata atcaagaagc 800

tccaagccta caaaacataa agtgcaattt tagaagtaca tgggaggtga 850

ttagcaattc tgaggatttt aaaaacacca tacccatggt gacaccacct 900

cctccacctg tcttctcatt gctgaagatc agtcaaagaa ttgtgtgctt 950

agttcttgat aagtctggaa gcatgggggg taaggaccgc ctaaatcgaa 1000

tgaatcaagc agcaaaacat ttcctgctgc agactgttga aaatggatcc 1050

tgggtgggga tggttcactt tgatagtact gccactattg taaataagct 1100

aatccaaata aaaagcagtg atgaaagaaa cacactcatg gcaggattac 1150

ctacatatcc tctgggagga acttccatct gctctggaat taaatatgca 1200

tttcaggtga ttggagagct acattcccaa ctcgatggat ccgaagtact 1250

gctgctgact gatggggagg ataacactgc aagttcttgt attgatgaag 1300

tgaaacaaag tggggccatt gttcatttta ttgctttggg aagagctgct 1350

gatgaagcag taatagagat gagcaagata acaggaggaa gtcattttta 1400

tgtttcagat gaagctcaga acaatggcct cattgatgct tttggggctc 1450

ttacatcagg aaatactgat ctctcccaga agtcccttca gctcgaaagt 1500

aagggattaa cactgaatag taatgcctgg atgaacgaca ctgtcataat 1550

tgatagtaca gtgggaaagg acacgttctt tctcatcaca tggaacagtc 1600

tgcctcccag tatttctctc tgggatccca gtggaacaat aatggaaaat 1650

ttcacagtgg atgcaacttc caaaatggcc tatctcagta ttccaggaac 1700

tgcaaaggtg ggcacttggg catacaatct tcaagccaaa gcgaacccag 1750

aaacattaac tattacagta acttctcgag cagcaaattc ttctgtgcct 1800

ccaatcacag tgaatgctaa aatgaataag gacgtaaaca gtttccccag 1850

cccaatgatt gtttacgcag aaattctaca aggatatgta cctgttcttg 1900

gagccaatgt gactgctttc attgaatcac agaatggaca tacagaagtt 1950

ttggaacttt tggataatgg tgcaggcgct gattctttca agaatgatgg 2000

agtctactcc aggtatttta cagcatatac agaaaatggc agatatagct 2050

taaaagttcg ggctcatgga ggagcaaaca ctgccaggct aaaattacgg 2100

cctccactga atagagccgc gtacatacca ggctgggtag tgaacgggga 2150

aattgaagca aacccgccaa gacctgaaat tgatgaggat actcagacca 2200

ccttggagga tttcagccga acagcatccg gaggtgcatt tgtggtatca 2250

caagtcccaa gccttccctt gcctgaccaa tacccaccaa gtcaaatcac 2300

agaccttgat gccacagttc atgaggataa gattattctt acatggacag 2350

caccaggaga taattttgat gttggaaaag ttcaacgtta tatcataaga 2400

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agtaaatact actgatctgt caccaaagga ggccaactcc aaggaaagct 2500

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attgccatta aaagtataga taaaagcaat ttgacatcaa aagtatccaa 2600

cattgcacaa gtaactttgt ttatccctca agcaaatcct gatgacattg 2650

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aattgttaac tttattttaa gtaccaccat ttgaacctta acgaagaaaa 2800

aaatcttcaa gtagacctag aagagagttt taaaaaacaa aacaatgtaa 2850

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tcatactgat acctggttgt atattatttg atgcaacagt tttctgaaat 3100

gatatttcaa attgcatcaa gaaattaaaa tcatctatct gagtagtcaa 3150

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aaaaaaaaaa aaaaa 3265

<210> 70
<211> 919
<212> PRT
<213> Homo Sapien

<400> 70

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Met Gly Leu Phe Arg Gly Phe Val Phe Leu Leu Val Leu Cys Leu
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Leu His Gln Ser Asn Thr Ser Phe Ile Lys Leu Asn Asn Asn Gly
                20                  25                  30

Phe Glu Asp Ile Val Ile Val Ile Asp Pro Ser Val Pro Glu Asp
                35                  40                  45

Glu Lys Ile Ile Glu Gln Ile Glu Asp Met Val Thr Thr Ala Ser
                50                  55                  60

Thr Tyr Leu Phe Glu Ala Thr Glu Lys Arg Phe Phe Phe Lys Asn
                65                  70                  75

Val Ser Ile Leu Ile Pro Glu Asn Trp Lys Glu Asn Pro Gln Tyr
                80                  85                  90

Lys Arg Pro Lys His Glu Asn His Lys His Ala Asp Val Ile Val
                95                 100                 105

Ala Pro Pro Thr Leu Pro Gly Arg Asp Glu Pro Tyr Thr Lys Gln
               110                 115                 120

Phe Thr Glu Cys Gly Glu Lys Gly Glu Tyr Ile His Phe Thr Pro
               125                 130                 135

Asp Leu Leu Leu Gly Lys Lys Gln Asn Glu Tyr Gly Pro Pro Gly
               140                 145                 150

Lys Leu Phe Val His Glu Trp Ala His Leu Arg Trp Gly Val Phe
               155                 160                 165

Asp Glu Tyr Asn Glu Asp Gln Pro Phe Tyr Arg Ala Lys Ser Lys
               170                 175                 180

Lys Ile Glu Ala Thr Arg Cys Ser Ala Gly Ile Ser Gly Arg Asn
               185                 190                 195

Arg Val Tyr Lys Cys Gln Gly Gly Ser Cys Leu Ser Arg Ala Cys
               200                 205                 210

Arg Ile Asp Ser Thr Thr Lys Leu Tyr Gly Lys Asp Cys Gln Phe
               215                 220                 225
Phe Pro Asp Lys Val Gln Thr Glu Lys Ala Ser Ile Met Phe Met
               230                 235                 240
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Gln Ser Ile Asp Ser Val Val Glu Phe Cys Asn Glu Lys Thr His
                245                 250                 255

Asn Gln Glu Ala Pro Ser Leu Gln Asn Ile Lys Cys Asn Phe Arg
                260                 265                 270

Ser Thr Trp Glu Val Ile Ser Asn Ser Glu Asp Phe Lys Asn Thr
                275                 280                 285

Ile Pro Met Val Thr Pro Pro Pro Pro Pro Val Phe Ser Leu Leu
                290                 295                 300

Lys Ile Ser Gln Arg Ile Val Cys Leu Val Leu Asp Lys Ser Gly
                305                 310                 315

Ser Met Gly Gly Lys Asp Arg Leu Asn Arg Met Asn Gln Ala Ala
                320                 325                 330

Lys His Phe Leu Leu Gln Thr Val Glu Asn Gly Ser Trp Val Gly
                335                 340                 345

Met Val His Phe Asp Ser Thr Ala Thr Ile Val Asn Lys Leu Ile
                350                 355                 360

Gln Ile Lys Ser Ser Asp Glu Arg Asn Thr Leu Met Ala Gly Leu
                365                 370                 375

Pro Thr Tyr Pro Leu Gly Gly Thr Ser Ile Cys Ser Gly Ile Lys
                380                 385                 390

Tyr Ala Phe Gln Val Ile Gly Glu Leu His Ser Gln Leu Asp Gly
                395                 400                 405

Ser Glu Val Leu Leu Leu Thr Asp Gly Glu Asp Asn Thr Ala Ser
                410                 415                 420

Ser Cys Ile Asp Glu Val Lys Gln Ser Gly Ala Ile Val His Phe
                425                 430                 435

Ile Ala Leu Gly Arg Ala Ala Asp Glu Ala Val Ile Glu Met Ser
                440                 445                 450

Lys Ile Thr Gly Gly Ser His Phe Tyr Val Ser Asp Glu Ala Gln
                455                 460                 465

Asn Asn Gly Leu Ile Asp Ala Phe Gly Ala Leu Thr Ser Gly Asn
                470                 475                 480

Thr Asp Leu Ser Gln Lys Ser Leu Gln Leu Glu Ser Lys Gly Leu
                485                 490                 495

Thr Leu Asn Ser Asn Ala Trp Met Asn Asp Thr Val Ile Ile Asp
                500                 505                 510

Ser Thr Val Gly Lys Asp Thr Phe Phe Leu Ile Thr Trp Asn Ser
                515                 520                 525
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Leu Pro Pro Ser Ile Ser Leu Trp Asp Pro Ser Gly Thr Ile Met
530 535 540

Glu Asn Phe Thr Val Asp Ala Thr Ser Lys Met Ala Tyr Leu Ser
545 550 555

Ile Pro Gly Thr Ala Lys Val Gly Thr Trp Ala Tyr Asn Leu Gln
560 565 570

Ala Lys Ala Asn Pro Glu Thr Leu Thr Ile Thr Val Thr Ser Arg
575 580 585

Ala Ala Asn Ser Ser Val Pro Pro Ile Thr Val Asn Ala Lys Met
590 595 600

Asn Lys Asp Val Asn Ser Phe Pro Ser Pro Met Ile Val Tyr Ala
605 610 615

Glu Ile Leu Gln Gly Tyr Val Pro Val Leu Gly Ala Asn Val Thr
620 625 630

Ala Phe Ile Glu Ser Gln Asn Gly His Thr Glu Val Leu Glu Leu
635 640 645

Leu Asp Asn Gly Ala Gly Ala Asp Ser Phe Lys Asn Asp Gly Val
650 655 660

Tyr Ser Arg Tyr Phe Thr Ala Tyr Thr Glu Asn Gly Arg Tyr Ser
665 670 675

Leu Lys Val Arg Ala His Gly Gly Ala Asn Thr Ala Arg Leu Lys
680 685 690

Leu Arg Pro Pro Leu Asn Arg Ala Ala Tyr Ile Pro Gly Trp Val
695 700 705

Val Asn Gly Glu Ile Glu Ala Asn Pro Pro Arg Pro Glu Ile Asp
710 715 720

Glu Asp Thr Gln Thr Thr Leu Glu Asp Phe Ser Arg Thr Ala Ser
725 730 735

Gly Gly Ala Phe Val Val Ser Gln Val Pro Ser Leu Pro Leu Pro
740 745 750

Asp Gln Tyr Pro Pro Ser Gln Ile Thr Asp Leu Asp Ala Thr Val
755 760 765

His Glu Asp Lys Ile Ile Leu Thr Trp Thr Ala Pro Gly Asp Asn
770 775 780

Phe Asp Val Gly Lys Val Gln Arg Tyr Ile Ile Arg Ile Ser Ala
785 790 795

Ser Ile Leu Asp Leu Arg Asp Ser Phe Asp Asp Ala Leu Gln Val
800 805 810

Asn Thr Thr Asp Leu Ser Pro Lys Glu Ala Asn Ser Lys Glu Ser
815 820 825

Phe Ala Phe Lys Pro Glu Asn Ile Ser Glu Glu Asn Ala Thr His
830 835 840

Ile Phe Ile Ala Ile Lys Ser Ile Asp Lys Ser Asn Leu Thr Ser
845 850 855

Lys Val Ser Asn Ile Ala Gln Val Thr Leu Phe Ile Pro Gln Ala
860 865 870

Asn Pro Asp Asp Ile Asp Pro Thr Pro Thr Pro Thr Pro Thr Pro
875 880 885

Thr Pro Asp Lys Ser His Asn Ser Gly Val Asn Ile Ser Thr Leu
890 895 900

Val Leu Ser Val Ile Gly Ser Val Val Ile Val Asn Phe Ile Leu
905 910 915

Ser Thr Thr Ile

<210> 71
<211> 3877
<212> DNA
<213> Homo Sapien

<400> 71
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gacccagagg agcaatgatg tagccacctc ctaaccttcc cttcttgaac 200

ccccagttat gccaggattt actagagagt gtcaactcaa ccagcaagcg 250

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gttctcttag cagtgctcag aagtgacttg cctgagggtg gaccagaaga 350

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caggtggaag taactgaatt atttttttaaa ttaagcagtt ctactcaatc 3550

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taataaaata tgatttgtgg atatgaa 3877

<210> 72
<211> 532
<212> PRT
<213> Homo Sapien

<400> 72

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				20				25						30	
Met	Leu	Ala	Cys	Thr	Pro	Lys	Gly	Asp	Glu	Glu	Gln	Leu	Ala	Leu	
				35				40						45	
Pro	Arg	Ala	Asn	Ser	Pro	Thr	Gly	Lys	Glu	Gly	Tyr	Gln	Ala	Val	
				50				55						60	
Leu	Gln	Glu	Trp	Glu	Glu	Gln	His	Arg	Asn	Tyr	Val	Ser	Ser	Leu	
				65				70						75	
Lys	Arg	Gln	Ile	Ala	Gln	Leu	Lys	Glu	Glu	Leu	Gln	Glu	Arg	Ser	
				80				85						90	
Glu	Gln	Leu	Arg	Asn	Gly	Gln	Tyr	Gln	Ala	Ser	Asp	Ala	Ala	Gly	
				95				100						105	
Leu	Gly	Leu	Asp	Arg	Ser	Pro	Pro	Glu	Lys	Thr	Gln	Ala	Asp	Leu	
				110				115						120	
Leu	Ala	Phe	Leu	His	Ser	Gln	Val	Asp	Lys	Ala	Glu	Val	Asn	Ala	
				125				130						135	
Gly	Val	Lys	Leu	Ala	Thr	Glu	Tyr	Ala	Ala	Val	Pro	Phe	Asp	Ser	
				140				145						150	
Phe	Thr	Leu	Gln	Lys	Val	Tyr	Gln	Leu	Glu	Thr	Gly	Leu	Thr	Arg	
				155				160						165	
His	Pro	Glu	Glu	Lys	Pro	Val	Arg	Lys	Asp	Lys	Arg	Asp	Glu	Leu	
				170				175						180	
Val	Glu	Ala	Ile	Glu	Ser	Ala	Leu	Glu	Thr	Leu	Asn	Asn	Pro	Ala	

185 190 195

Glu Asn Ser Pro Asn His Arg Pro Tyr Thr Ala Ser Asp Phe Ile
200 205 210

Glu Gly Ile Tyr Arg Thr Glu Arg Asp Lys Gly Thr Leu Tyr Glu
215 220 225

Leu Thr Phe Lys Gly Asp His Lys His Glu Phe Lys Arg Leu Ile
230 235 240

Leu Phe Arg Pro Phe Ser Pro Ile Met Lys Val Lys Asn Glu Lys
245 250 255

Leu Asn Met Ala Asn Thr Leu Ile Asn Val Ile Val Pro Leu Ala
260 265 270

Lys Arg Val Asp Lys Phe Arg Gln Phe Met Gln Asn Phe Arg Glu
275 280 285

Met Cys Ile Glu Gln Asp Gly Arg Val His Leu Thr Val Val Tyr
290 295 300

Phe Gly Lys Glu Glu Ile Asn Glu Val Lys Gly Ile Leu Glu Asn
305 310 315

Thr Ser Lys Ala Ala Asn Phe Arg Asn Phe Thr Phe Ile Gln Leu
320 325 330

Asn Gly Glu Phe Ser Arg Gly Lys Gly Leu Asp Val Gly Ala Arg
335 340 345

Phe Trp Lys Gly Ser Asn Val Leu Leu Phe Phe Cys Asp Val Asp
350 355 360

Ile Tyr Phe Thr Ser Glu Phe Leu Asn Thr Cys Arg Leu Asn Thr
365 370 375

Gln Pro Gly Lys Lys Val Phe Tyr Pro Val Leu Phe Ser Gln Tyr
380 385 390

Asn Pro Gly Ile Ile Tyr Gly His His Asp Ala Val Pro Pro Leu
395 400 405

Glu Gln Gln Leu Val Ile Lys Lys Glu Thr Gly Phe Trp Arg Asp
410 415 420

Phe Gly Phe Gly Met Thr Cys Gln Tyr Arg Ser Asp Phe Ile Asn
425 430 435

Ile Gly Gly Phe Asp Leu Asp Ile Lys Gly Trp Gly Gly Glu Asp
440 445 450

Val His Leu Tyr Arg Lys Tyr Leu His Ser Asn Leu Ile Val Val
455 460 465

Arg Thr Pro Val Arg Gly Leu Phe His Leu Trp His Glu Lys Arg

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                470                 475                 480

 Cys Met Asp Glu Leu Thr Pro Glu Gln Tyr Lys Met Cys Met Gln
                485                 490                 495

 Ser Lys Ala Met Asn Glu Ala Ser His Gly Gln Leu Gly Met Leu
                500                 505                 510

 Val Phe Arg His Glu Ile Glu Ala His Leu Arg Lys Gln Lys Gln
                515                 520                 525

 Lys Thr Ser Ser Lys Lys Thr
                530
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<210> 73
<211> 1701
<212> DNA
<213> Homo Sapien
<220>
<221> unsure
<222> 1528
<223> unknown base

<400> 73

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 cccagtcgcc catcgatatt cagacagaca gtgtgacatt tgaccctgat 450

 ttgcctgctc tgcagcccca cggatatgac cagcctggca ccgagccttt 500

 ggacctgcac aacaatggcc acacagtgca actctctctg ccctctaccc 550

 tgtatctggg tggacttccc cgaaaatatg tagctgccca gctccacctg 600

 cactggggtc agaaaggatc cccaggggggg tcagaacacc agatcaacag 650

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 atgacagctt gagtgaggct gctgagaggc ctcagggcct ggctgtcctg 750

 ggcatcctaa ttgaggtggg tgagactaag aatatagctt atgaacacat 800

 tctgagtcac ttgcatgaag tcaggcataa agatcagaag acctcagtgc 850
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gacagttttt tatagaaggt cccagatttc aatggaacag ctggaaaagc 1000

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ccttcccctg gacatctctt agagaggaat ggacccaggc tgtcattcca 1450

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t 1701

<210> 74
<211> 337
<212> PRT
<213> Homo Sapien

<400> 74

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Ala	Asp	Gly	Gly	Gln	His	Trp	Thr	Tyr	Glu	Gly	Pro	His	Gly	Gln	
				20				25						30	
Asp	His	Trp	Pro	Ala	Ser	Tyr	Pro	Glu	Cys	Gly	Asn	Asn	Ala	Gln	
				35				40						45	
Ser	Pro	Ile	Asp	Ile	Gln	Thr	Asp	Ser	Val	Thr	Phe	Asp	Pro	Asp	
				50				55						60	
Leu	Pro	Ala	Leu	Gln	Pro	His	Gly	Tyr	Asp	Gln	Pro	Gly	Thr	Glu	
				65				70						75	

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Pro Leu Asp Leu His Asn Asn Gly His Thr Val Gln Leu Ser Leu
                 80                  85                  90

Pro Ser Thr Leu Tyr Leu Gly Gly Leu Pro Arg Lys Tyr Val Ala
                 95                 100                 105

Ala Gln Leu His Leu His Trp Gly Gln Lys Gly Ser Pro Gly Gly
                110                 115                 120

Ser Glu His Gln Ile Asn Ser Glu Ala Thr Phe Ala Glu Leu His
                125                 130                 135

Ile Val His Tyr Asp Ser Asp Ser Tyr Asp Ser Leu Ser Glu Ala
                140                 145                 150

Ala Glu Arg Pro Gln Gly Leu Ala Val Leu Gly Ile Leu Ile Glu
                155                 160                 165

Val Gly Glu Thr Lys Asn Ile Ala Tyr Glu His Ile Leu Ser His
                170                 175                 180

Leu His Glu Val Arg His Lys Asp Gln Lys Thr Ser Val Pro Pro
                185                 190                 195
Phe Asn Leu Arg Glu Leu Leu Pro Lys Gln Leu Gly Gln Tyr Phe
                200                 205                 210

Arg Tyr Asn Gly Ser Leu Thr Thr Pro Pro Cys Tyr Gln Ser Val
                215                 220                 225

Leu Trp Thr Val Phe Tyr Arg Arg Ser Gln Ile Ser Met Glu Gln
                230                 235                 240

Leu Glu Lys Leu Gln Gly Thr Leu Phe Ser Thr Glu Glu Glu Pro
                245                 250                 255

Ser Lys Leu Leu Val Gln Asn Tyr Arg Ala Leu Gln Pro Leu Asn
                260                 265                 270

Gln Arg Met Val Phe Ala Ser Phe Ile Gln Ala Gly Ser Ser Tyr
                275                 280                 285

Thr Thr Gly Glu Met Leu Ser Leu Gly Val Gly Ile Leu Val Gly
                290                 295                 300

Cys Leu Cys Leu Leu Leu Ala Val Tyr Phe Ile Ala Arg Lys Ile
                305                 310                 315

Arg Lys Lys Arg Leu Glu Asn Arg Lys Ser Val Val Phe Thr Ser
                320                 325                 330

Ala Gln Ala Thr Thr Glu Ala
                335
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<210> 75
<211> 1743
<212> DNA

<213> Homo Sapien

<400> 75

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cttatccatc aacatgaaga atgtcctaca atggactcca ccagagggtc 150

ttcaaggagt taaagttact tacactgtgc agtatttcat cacaaattgg 200

cccaccagag gtggcactga ctacagatga gaagtccatt tctgttgtcc 250

tgacagctcc agagaagtgg aagagaaatc cagaagacct tcctgtttcc 300

atgcaacaaa tatactccaa tctgaagtat aacgtgtctg tgttgaatac 350

taaatcaaac agaacgtggt cccagtgtgt gaccaaccac acgctggtgc 400

tcacctggct ggagccgaac actctttact gcgtacacgt ggagtccttc 450

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tccatctacc gatatatcca cgttggcaaa gagaaacacc cagcaaattt 650

gattttgatt tatggaaatg aatttgacaa aagattcttt gtgcctgctg 700

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caggaggagg tgtccacaca aggaacatta ttggagtcgc aggcagcgtt 1100

ggcagtcttg ggcccgcaaa cgttacagta ctcatacacc cctcagctcc 1150

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<210> 76
<211> 442
<212> PRT
<213> Homo Sapien

<400> 76

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Leu	Leu	Thr	Leu	Cys	Ser	Ile	Ser	Ser	Gln	Ile	Gly	Pro	Pro	Glu	
				20				25						30	
Val	Ala	Leu	Thr	Thr	Asp	Glu	Lys	Ser	Ile	Ser	Val	Val	Leu	Thr	
				35				40						45	
Ala	Pro	Glu	Lys	Trp	Lys	Arg	Asn	Pro	Glu	Asp	Leu	Pro	Val	Ser	
				50				55						60	
Met	Gln	Gln	Ile	Tyr	Ser	Asn	Leu	Lys	Tyr	Asn	Val	Ser	Val	Leu	
				65				70						75	
Asn	Thr	Lys	Ser	Asn	Arg	Thr	Trp	Ser	Gln	Cys	Val	Thr	Asn	His	
				80				85						90	
Thr	Leu	Val	Leu	Thr	Trp	Leu	Glu	Pro	Asn	Thr	Leu	Tyr	Cys	Val	
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His	Val	Glu	Ser	Phe	Val	Pro	Gly	Pro	Pro	Arg	Arg	Ala	Gln	Pro	
				110				115						120	
Ser	Glu	Lys	Gln	Cys	Ala	Arg	Thr	Leu	Lys	Asp	Gln	Ser	Ser	Glu	
				125				130						135	
Phe	Lys	Ala	Lys	Ile	Ile	Phe	Trp	Tyr	Val	Leu	Pro	Ile	Ser	Ile	
				140				145						150	
Thr	Val	Phe	Leu	Phe	Ser	Val	Met	Gly	Tyr	Ser	Ile	Tyr	Arg	Tyr	
				155				160						165	
Ile	His	Val	Gly	Lys	Glu	Lys	His	Pro	Ala	Asn	Leu	Ile	Leu	Ile	
				170				175						180	

Tyr Gly Asn Glu Phe Asp Lys Arg Phe Phe Val Pro Ala Glu Lys
185 190 195

Ile Val Ile Asn Phe Ile Thr Leu Asn Ile Ser Asp Asp Ser Lys
200 205 210

Ile Ser His Gln Asp Met Ser Leu Leu Gly Lys Ser Ser Asp Val
215 220 225

Ser Ser Leu Asn Asp Pro Gln Pro Ser Gly Asn Leu Arg Pro Pro
230 235 240

Gln Glu Glu Glu Glu Val Lys His Leu Gly Tyr Ala Ser His Leu
245 250 255

Met Glu Ile Phe Cys Asp Ser Glu Glu Asn Thr Glu Gly Thr Ser
260 265 270

Leu Thr Gln Gln Glu Ser Leu Ser Arg Thr Ile Pro Pro Asp Lys
275 280 285

Thr Val Ile Glu Tyr Glu Tyr Asp Val Arg Thr Thr Asp Ile Cys
290 295 300

Ala Gly Pro Glu Glu Gln Glu Leu Ser Leu Gln Glu Glu Val Ser
305 310 315

Thr Gln Gly Thr Leu Leu Glu Ser Gln Ala Ala Leu Ala Val Leu
320 325 330

Gly Pro Gln Thr Leu Gln Tyr Ser Tyr Thr Pro Gln Leu Gln Asp
335 340 345

Leu Asp Pro Leu Ala Gln Glu His Thr Asp Ser Glu Glu Gly Pro
350 355 360

Glu Glu Glu Pro Ser Thr Thr Leu Val Asp Trp Asp Pro Gln Thr
365 370 375

Gly Arg Leu Cys Ile Pro Ser Leu Ser Ser Phe Asp Gln Asp Ser
380 385 390

Glu Gly Cys Glu Pro Ser Glu Gly Asp Gly Leu Gly Glu Glu Gly
395 400 405

Leu Leu Ser Arg Leu Tyr Glu Glu Pro Ala Pro Asp Arg Pro Pro
410 415 420

Gly Glu Asn Glu Thr Tyr Leu Met Gln Phe Met Glu Glu Trp Gly
425 430 435

Leu Tyr Val Gln Met Glu Asn
440

<210> 77
<211> 1636
<212> DNA

<213> Homo Sapien

<400> 77
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ctctgtggtt tgctggcagc caccttgatc caagccaccc tcagtcccac 150

tgcagttctc atcctcggcc caaaagtcat caaagaaaag ctgacacagg 200

agctgaagga ccacaacgcc accagcatcc tgcagcagct gccgctgctc 250

agtgccatgc gggaaaagcc agccggaggc atccctgtgc tgggcagcct 300

ggtgaacacc gtcctgaagc acatcatctg gctgaaggtc atcacagcta 350

acatcctcca gctgcaggtg aagccctcgg ccaatgacca ggagctgcta 400

gtcaagatcc ccctggacat ggtggctgga ttcaacacgc ccctggtcaa 450

gaccatcgtg gagttccaca tgacgactga ggcccaagcc accatccgca 500

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ccattcagct ctacctgggg gccaagttgt tggactcaca gggaaaggtg 850
accaagtggt tcaataactc tgcagcttcc ctgacaatgc ccaccctgga 900

caacatcccg ttcagcctca tcgtgagtca ggacgtggtg aaagctgcag 950

tggctgctgt gctctctcca gaagaattca tggtcctgtt ggactctgtg 1000

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atgaactctg ggattggctg gttccaacct gatgttctga aaaacatcat 1350

cactgagatc atccactcca tcctgctgcc gaaccagaat ggcaaattaa 1400

gatctggggt cccagtgtca ttggtgaagg ccttgggatt cgaggcagct 1450

gagtcctcac tgaccaagga tgcccttgtg cttactccag cctccttgtg 1500

gaaacccagc tctcctgtct cccagtgaag acttggatgg cagccatcag 1550

ggaaggctgg gtcccagctg ggagtatggg tgtgagctct atagaccatc 1600

cctctctgca atcaataaac acttgcctgt gaaaaa 1636

<210> 78
<211> 484
<212> PRT
<213> Homo Sapien

<400> 78

Met	Ala	Gly	Pro	Trp	Thr	Phe	Thr	Leu	Leu	Cys	Gly	Leu	Leu	Ala
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Ala	Thr	Leu	Ile	Gln	Ala	Thr	Leu	Ser	Pro	Thr	Ala	Val	Leu	Ile
				20				25						30
Leu	Gly	Pro	Lys	Val	Ile	Lys	Glu	Lys	Leu	Thr	Gln	Glu	Leu	Lys
				35				40						45
Asp	His	Asn	Ala	Thr	Ser	Ile	Leu	Gln	Gln	Leu	Pro	Leu	Leu	Ser
				50				55						60
Ala	Met	Arg	Glu	Lys	Pro	Ala	Gly	Gly	Ile	Pro	Val	Leu	Gly	Ser
				65				70						75
Leu	Val	Asn	Thr	Val	Leu	Lys	His	Ile	Ile	Trp	Leu	Lys	Val	Ile
				80				85						90
Thr	Ala	Asn	Ile	Leu	Gln	Leu	Gln	Val	Lys	Pro	Ser	Ala	Asn	Asp
				95				100						105
Gln	Glu	Leu	Leu	Val	Lys	Ile	Pro	Leu	Asp	Met	Val	Ala	Gly	Phe
				110				115						120
Asn	Thr	Pro	Leu	Val	Lys	Thr	Ile	Val	Glu	Phe	His	Met	Thr	Thr
				125				130						135
Glu	Ala	Gln	Ala	Thr	Ile	Arg	Met	Asp	Thr	Ser	Ala	Ser	Gly	Pro
				140				145						150
Thr	Arg	Leu	Val	Leu	Ser	Asp	Cys	Ala	Thr	Ser	His	Gly	Ser	Leu
				155				160						165
Arg	Ile	Gln	Leu	Leu	Tyr	Lys	Leu	Ser	Phe	Leu	Val	Asn	Ala	Leu
				170				175						180
Ala	Lys	Gln	Val	Met	Asn	Leu	Leu	Val	Pro	Ser	Leu	Pro	Asn	Leu
				185				190						195
Val	Lys	Asn	Gln	Leu	Cys	Pro	Val	Ile	Glu	Ala	Ser	Phe	Asn	Gly

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                200                 205                 210

Met Tyr Ala Asp Leu Leu Gln Leu Val Lys Val Pro Ile Ser Leu
                215                 220                 225

Ser Ile Asp Arg Leu Glu Phe Asp Leu Leu Tyr Pro Ala Ile Lys
                230                 235                 240

Gly Asp Thr Ile Gln Leu Tyr Leu Gly Ala Lys Leu Leu Asp Ser
                245                 250                 255

Gln Gly Lys Val Thr Lys Trp Phe Asn Asn Ser Ala Ala Ser Leu
                260                 265                 270

Thr Met Pro Thr Leu Asp Asn Ile Pro Phe Ser Leu Ile Val Ser
                275                 280                 285

Gln Asp Val Val Lys Ala Ala Val Ala Ala Val Leu Ser Pro Glu
                290                 295                 300

Glu Phe Met Val Leu Leu Asp Ser Val Leu Pro Glu Ser Ala His
                305                 310                 315

Arg Leu Lys Ser Ser Ile Gly Leu Ile Asn Glu Lys Ala Ala Asp
                320                 325                 330

Lys Leu Gly Ser Thr Gln Ile Val Lys Ile Leu Thr Gln Asp Thr
                335                 340                 345

Pro Glu Phe Phe Ile Asp Gln Gly His Ala Lys Val Ala Gln Leu
                350                 355                 360

Ile Val Leu Glu Val Phe Pro Ser Ser Glu Ala Leu Arg Pro Leu
                365                 370                 375

Phe Thr Leu Gly Ile Glu Ala Ser Ser Glu Ala Gln Phe Tyr Thr
                380                 385                 390

Lys Gly Asp Gln Leu Ile Leu Asn Leu Asn Asn Ile Ser Ser Asp
                395                 400                 405

Arg Ile Gln Leu Met Asn Ser Gly Ile Gly Trp Phe Gln Pro Asp
                410                 415                 420

Val Leu Lys Asn Ile Ile Thr Glu Ile Ile His Ser Ile Leu Leu
                425                 430                 435

Pro Asn Gln Asn Gly Lys Leu Arg Ser Gly Val Pro Val Ser Leu
                440                 445                 450

Val Lys Ala Leu Gly Phe Glu Ala Ala Glu Ser Ser Leu Thr Lys
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Asp Ala Leu Val Leu Thr Pro Ala Ser Leu Trp Lys Pro Ser Ser
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Pro Val Ser Gln
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<210> 79
<211> 1475
<212> DNA
<213> Homo Sapien

<400> 79
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ctacatccta ggccttctgg ggcttttggg cacactggtt gccatgctgc 200

tccccagctg gaaaacaagt tcttatgtcg gtgccagcat tgtgacagca 250

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gcctgcatta tctctgtggt gggcatgaga tgcacagtct tctgccagga 450

atcccgagcc aaagacagag tggcggtagc aggtggagtc tttttcatcc 500

ttggaggcct cctgggattc attcctgttg cctggaatct tcatgggatc 550

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gagaagcagt ggcttttgtg ggcattgctc taacctactt ctcaagcttc 1300

cctccaaaga aactgattgg ccctggaacc tccatcccac tcttgttatg 1350

actccacagt gtccagacta atttgtgcat gaactgaaat aaaaccatcc 1400

tacggtatcc agggaacaga aagcaggatg caggatggga ggacaggaag 1450

gcagcctggg acatttaaaa aaata 1475

<210> 80
<211> 230
<212> PRT
<213> Homo Sapien

<400> 80

Met	Ala	Ser	Leu	Gly	Leu	Gln	Leu	Val	Gly	Tyr	Ile	Leu	Gly	Leu	
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Leu	Gly	Leu	Leu	Gly	Thr	Leu	Val	Ala	Met	Leu	Leu	Pro	Ser	Trp	
				20				25						30	
Lys	Thr	Ser	Ser	Tyr	Val	Gly	Ala	Ser	Ile	Val	Thr	Ala	Val	Gly	
				35				40						45	
Phe	Ser	Lys	Gly	Leu	Trp	Met	Glu	Cys	Ala	Thr	His	Ser	Thr	Gly	
				50				55						60	
Ile	Thr	Gln	Cys	Asp	Ile	Tyr	Ser	Thr	Leu	Leu	Gly	Leu	Pro	Ala	
				65				70						75	
Asp	Ile	Gln	Ala	Ala	Gln	Ala	Met	Met	Val	Thr	Ser	Ser	Ala	Ile	
				80				85						90	
Ser	Ser	Leu	Ala	Cys	Ile	Ile	Ser	Val	Val	Gly	Met	Arg	Cys	Thr	
				95				100						105	
Val	Phe	Cys	Gln	Glu	Ser	Arg	Ala	Lys	Asp	Arg	Val	Ala	Val	Ala	
				110				115						120	
Gly	Gly	Val	Phe	Phe	Ile	Leu	Gly	Gly	Leu	Leu	Gly	Phe	Ile	Pro	
				125				130						135	
Val	Ala	Trp	Asn	Leu	His	Gly	Ile	Leu	Arg	Asp	Phe	Tyr	Ser	Pro	
				140				145						150	
Leu	Val	Pro	Asp	Ser	Met	Lys	Phe	Glu	Ile	Gly	Glu	Ala	Leu	Tyr	
				155				160						165	
Leu	Gly	Ile	Ile	Ser	Ser	Leu	Phe	Ser	Leu	Ile	Ala	Gly	Ile	Ile	
				170				175						180	
Leu	Cys	Phe	Ser	Cys	Ser	Ser	Gln	Arg	Asn	Arg	Ser	Asn	Tyr	Tyr	
				185				190						195	
Asp	Ala	Tyr	Gln	Ala	Gln	Pro	Leu	Ala	Thr	Arg	Ser	Ser	Pro	Arg	
				200				205						210	

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Leu Thr Gly Tyr Val
230

<210> 81
<211> 1732
<212> DNA
<213> Homo Sapien

<400> 81
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cttagacctc ccttcctgcc ctcctttcct gcccaccgct gcttcctggc 150

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accgcctcca ctgtccgcct gtccactgcc cccagcctgt gacggagcca 550

cagcaatgct gtcccaagtg tgtggaacct cacactccct ctggactccg 600

ggccccacca aagtcctgcc agcacaacgg gaccatgtac caacacggag 650

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gccacagtga gatcagttct accaggtgtc ccaaggcacc gggccgggtc 1300

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cattaccctc aaaaaaaaaa aaaaaaaaaa aa 1732

<210> 82
<211> 451
<212> PRT
<213> Homo Sapien

<400> 82

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Leu	Leu	Trp	Phe	Pro	Leu	Asp	Ser	His	Ala	Arg	Ala	Arg	Pro	Asp
			20					25					30	
Met	Phe	Cys	Leu	Phe	His	Gly	Lys	Arg	Tyr	Ser	Pro	Gly	Glu	Ser
			35					40					45	
Trp	His	Pro	Tyr	Leu	Glu	Pro	Gln	Gly	Leu	Met	Tyr	Cys	Leu	Arg
			50					55					60	
Cys	Thr	Cys	Ser	Glu	Gly	Ala	His	Val	Ser	Cys	Tyr	Arg	Leu	His
			65					70					75	
Cys	Pro	Pro	Val	His	Cys	Pro	Gln	Pro	Val	Thr	Glu	Pro	Gln	Gln
			80					85					90	
Cys	Cys	Pro	Lys	Cys	Val	Glu	Pro	His	Thr	Pro	Ser	Gly	Leu	Arg
			95					100					105	
Ala	Pro	Pro	Lys	Ser	Cys	Gln	His	Asn	Gly	Thr	Met	Tyr	Gln	His
			110					115					120	
Gly	Glu	Ile	Phe	Ser	Ala	His	Glu	Leu	Phe	Pro	Ser	Arg	Leu	Pro
			125					130					135	

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Asn Gln Cys Val Leu Cys Ser Cys Thr Glu Gly Gln Ile Tyr Cys
                140                 145                 150

Gly Leu Thr Thr Cys Pro Glu Pro Gly Cys Pro Ala Pro Leu Pro
                155                 160                 165

Leu Pro Asp Ser Cys Cys Gln Ala Cys Lys Asp Glu Ala Ser Glu
                170                 175                 180

Gln Ser Asp Glu Glu Asp Ser Val Gln Ser Leu His Gly Val Arg
                185                 190                 195

His Pro Gln Asp Pro Cys Ser Ser Asp Ala Gly Arg Lys Arg Gly
                200                 205                 210

Pro Gly Thr Pro Ala Pro Thr Gly Leu Ser Ala Pro Leu Ser Phe
                215                 220                 225

Ile Pro Arg His Phe Arg Pro Lys Gly Ala Gly Ser Thr Thr Val
                230                 235                 240

Lys Ile Val Leu Lys Glu Lys His Lys Lys Ala Cys Val His Gly
                245                 250                 255

Gly Lys Thr Tyr Ser His Gly Glu Val Trp His Pro Ala Phe Arg
                260                 265                 270

Ala Phe Gly Pro Leu Pro Cys Ile Leu Cys Thr Cys Glu Asp Gly
                275                 280                 285

Arg Gln Asp Cys Gln Arg Val Thr Cys Pro Thr Glu Tyr Pro Cys
                290                 295                 300

Arg His Pro Glu Lys Val Ala Gly Lys Cys Cys Lys Ile Cys Pro
                305                 310                 315

Glu Asp Lys Ala Asp Pro Gly His Ser Glu Ile Ser Ser Thr Arg
                320                 325                 330

Cys Pro Lys Ala Pro Gly Arg Val Leu Val His Thr Ser Val Ser
                335                 340                 345

Pro Ser Pro Asp Asn Leu Arg Arg Phe Ala Leu Glu His Glu Ala
                350                 355                 360

Ser Asp Leu Val Glu Ile Tyr Leu Trp Lys Leu Val Lys Asp Glu
                365                 370                 375

Glu Thr Glu Ala Gln Arg Gly Glu Val Pro Gly Pro Arg Pro His
                380                 385                 390

Ser Gln Asn Leu Pro Leu Asp Ser Asp Gln Glu Ser Gln Glu Ala
                395                 400                 405

Arg Leu Pro Glu Arg Gly Thr Ala Leu Pro Thr Ala Arg Trp Pro
                410                 415                 420
```

Pro Arg Arg Ser Leu Glu Arg Leu Pro Ser Pro Asp Pro Gly Ala
425 430 435

Glu Gly His Gly Gln Ser Arg Gln Ser Asp Gln Asp Ile Thr Lys
440 445 450

Thr

<210> 83
<211> 2052
<212> DNA
<213> Homo Sapien

<400> 83
gacagctgtg tctcgatgga gtagactctc agaacagcgc agtttgccct 50

ccgctcacgc agagcctctc cgtggcttcc gcaccttgag cattaggcca 100

gttctcctct tctctctaat ccatccgtca cctctcctgt catccgtttc 150

catgccgtga ggtccattca cagaacacat ccatggctct catgctcagt 200

ttggttctga gtctcctcaa gctgggatca gggcagtggc aggtgtttgg 250

gccagacaag cctgtccagg ccttggtggg ggaggacgca gcattctcct 300

gtttcctgtc tcctaagacc aatgcagagg ccatggaagt gcggttcttc 350

aggggccagt tctctagcgt ggtccacctc tacagggacg ggaaggacca 400

gccatttatg cagatgccac agtatcaagg caggacaaaa ctggtgaagg 450

attctattgc ggaggggcgc atctctctga ggctggaaaa cattactgtg 500

ttggatgctg gcctctatgg gtgcaggatt agttcccagt cttactacca 550

gaaggccatc tgggagctac aggtgtcagc actgggctca gttcctctca 600

tttccatcac gggatatgtt gatagagaca tccagctact ctgtcagtcc 650

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aggagatacc tttttcgagc ctatatcgtg gcacctggct accaaagtac 900

tgggaatact ctgctgtggc ctatttttg gcattgttgg actgaagatt 950

ttcttctcca aattccagtg gaaaatccag gcggaactgg actggagaag 1000

aaagcacgga caggcagaat tgagagacgc ccggaaacac gcagtggagg 1050

tgactctgga tccagagacg gctcacccga agctctgcgt ttctgatctg 1100

aaaactgtaa cccatagaaa agctccccag gaggtgcctc actctgagaa 1150
gagatttaca aggaagagtg tggtggcttc tcagagtttc caagcaggga 1200

aacattactg ggaggtggac ggaggacaca ataaaaggtg gcgcgtggga 1250

gtgtgccggg atgatgtgga caggaggaag gagtacgtga ctttgtctcc 1300

cgatcatggg tactgggtcc tcagactgaa tggagaacat ttgtatttca 1350

cattaaatcc ccgttttatc agcgtcttcc ccaggacccc acctacaaaa 1400

ataggggtct tcctggacta tgagtgtggg accatctcct tcttcaacat 1450

aaatgaccag tcccttattt ataccctgac atgtcggttt gaaggcttat 1500

tgaggcccta cattgagtat ccgtcctata atgagcaaaa tggaactccc 1550

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ccacctctca ggtgaagaac cgtcaggaat tcccatctca caggctgtgg 1950

tgtagattaa gtagacaagg aatgtgaata atgcttagat cttattgatg 2000

acagagtgta tcctaatggt ttgttcatta tattacactt tcagtaaaaa 2050

aa 2052

<210> 84
<211> 500
<212> PRT
<213> Homo Sapien

<400> 84
Met Ala Leu Met Leu Ser Leu Val Leu Ser Leu Leu Lys Leu Gly
1 5 10 15

Ser Gly Gln Trp Gln Val Phe Gly Pro Asp Lys Pro Val Gln Ala
20 25 30

Leu Val Gly Glu Asp Ala Ala Phe Ser Cys Phe Leu Ser Pro Lys
35 40 45

Thr Asn Ala Glu Ala Met Glu Val Arg Phe Phe Arg Gly Gln Phe

```
                50                  55                  60

Ser Ser Val Val His Leu Tyr Arg Asp Gly Lys Asp Gln Pro Phe
                65                  70                  75

Met Gln Met Pro Gln Tyr Gln Gly Arg Thr Lys Leu Val Lys Asp
                80                  85                  90

Ser Ile Ala Glu Gly Arg Ile Ser Leu Arg Leu Glu Asn Ile Thr
                95                 100                 105

Val Leu Asp Ala Gly Leu Tyr Gly Cys Arg Ile Ser Ser Gln Ser
               110                 115                 120

Tyr Tyr Gln Lys Ala Ile Trp Glu Leu Gln Val Ser Ala Leu Gly
               125                 130                 135

Ser Val Pro Leu Ile Ser Ile Thr Gly Tyr Val Asp Arg Asp Ile
               140                 145                 150

Gln Leu Leu Cys Gln Ser Ser Gly Trp Phe Pro Arg Pro Thr Ala
               155                 160                 165

Lys Trp Lys Gly Pro Gln Gly Gln Asp Leu Ser Thr Asp Ser Arg
               170                 175                 180

Thr Asn Arg Asp Met His Gly Leu Phe Asp Val Glu Ile Ser Leu
               185                 190                 195

Thr Val Gln Glu Asn Ala Gly Ser Ile Ser Cys Ser Met Arg His
               200                 205                 210

Ala His Leu Ser Arg Glu Val Glu Ser Arg Val Gln Ile Gly Asp
               215                 220                 225

Thr Phe Phe Glu Pro Ile Ser Trp His Leu Ala Thr Lys Val Leu
               230                 235                 240

Gly Ile Leu Cys Cys Gly Leu Phe Phe Gly Ile Val Gly Leu Lys
               245                 250                 255

Ile Phe Phe Ser Lys Phe Gln Trp Lys Ile Gln Ala Glu Leu Asp
               260                 265                 270

Trp Arg Arg Lys His Gly Gln Ala Glu Leu Arg Asp Ala Arg Lys
               275                 280                 285

His Ala Val Glu Val Thr Leu Asp Pro Glu Thr Ala His Pro Lys
               290                 295                 300

Leu Cys Val Ser Asp Leu Lys Thr Val Thr His Arg Lys Ala Pro
               305                 310                 315

Gln Glu Val Pro His Ser Glu Lys Arg Phe Thr Arg Lys Ser Val
               320                 325                 330

Val Ala Ser Gln Ser Phe Gln Ala Gly Lys His Tyr Trp Glu Val
```

335 340 345

Asp Gly Gly His Asn Lys Arg Trp Arg Val Gly Val Cys Arg Asp
350 355 360

Asp Val Asp Arg Arg Lys Glu Tyr Val Thr Leu Ser Pro Asp His
365 370 375

Gly Tyr Trp Val Leu Arg Leu Asn Gly Glu His Leu Tyr Phe Thr
380 385 390

Leu Asn Pro Arg Phe Ile Ser Val Phe Pro Arg Thr Pro Pro Thr
395 400 405

Lys Ile Gly Val Phe Leu Asp Tyr Glu Cys Gly Thr Ile Ser Phe
410 415 420

Phe Asn Ile Asn Asp Gln Ser Leu Ile Tyr Thr Leu Thr Cys Arg
425 430 435

Phe Glu Gly Leu Leu Arg Pro Tyr Ile Glu Tyr Pro Ser Tyr Asn
440 445 450

Glu Gln Asn Gly Thr Pro Ile Val Ile Cys Pro Val Thr Gln Glu
455 460 465

Ser Glu Lys Glu Ala Ser Trp Gln Arg Ala Ser Ala Ile Pro Glu
470 475 480

Thr Ser Asn Ser Glu Ser Ser Ser Gln Ala Thr Thr Pro Phe Leu
485 490 495

Pro Arg Gly Glu Met
500

<210> 85
<211> 1665
<212> DNA
<213> Homo Sapien

<400> 85
aacagacgtt ccctcgcggc cctggcacct ctaaccccag acatgctgct 50

gctgctgctg cccctgctct gggggaggga gagggcggaa ggacagacaa 100

gtaaactgct gacgatgcag agttccgtga cggtgcagga aggcctgtgt 150

gtccatgtgc cctgctcctt ctcctacccc tcgcatggct ggatttaccc 200

tggcccagta gttcatggct actggttccg ggaaggggcc aatacagacc 250

aggatgctcc agtggccaca aacaacccag ctcgggcagt gtgggaggag 300

actcgggacc gattccacct ccttggggac ccacatacca agaattgcac 350

cctgagcatc agagatgcca gaagaagtga tgcggggaga tacttctttc 400

gtatggagaa aggaagtata aaatggaatt ataaacatca ccggctctct 450

gtgaatgtga cagccttgac ccacaggccc aacatcctca tcccaggcac 500

cctggagtcc ggctgccccc agaatctgac ctgctctgtg ccctgggcct 550

gtgagcaggg gacacccccc atgatctcct ggatagggac ctccgtgtcc 600

cccctggacc cctccaccac ccgctcctcg gtgctcaccc tcatcccaca 650

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gcagagctca gaaccctctc ggctctcagc aggtctacct gaacgtctcc 1050

ctgcagagca aagccacatc aggagtgact caggggggtgg tcgggggagc 1100

tggagccaca gccctggtct tcctgtcctt ctgcgtcatc ttcgttgtag 1150

tgaggtcctg caggaagaaa tcggcaaggc cagcagcggg cgtgggagat 1200

acgggcatag aggatgcaaa cgctgtcagg ggttcagcct ctcaggggcc 1250

cctgactgaa ccttgggcag aagacagtcc cccagaccag cctcccccag 1300

cttctgcccg ctcctcagtg ggggaaggag agctccagta tgcatccctc 1350

agcttccaga tggtgaagcc ttgggactcg cggggacagg aggccactga 1400

caccgagtac tcggagatca agatccacag atgagaaact gcagagactc 1450

accctgattg agggatcaca gcccctccag gcaagggaga agtcagaggc 1500

tgattcttgt agaattaaca gccctcaacg tgatgagcta tgataacact 1550

atgaattatg tgcagagtga aaagcacaca ggctttagag tcaaagtatc 1600

tcaaacctga atccacactg tgccctccct tttatttttt taactaaaag 1650

acagacaaat tccta 1665

<210> 86
<211> 463
<212> PRT
<213> Homo Sapien

<400> 86

```
Met Leu Leu Leu Leu Leu Pro Leu Leu Trp Gly Arg Glu Arg Ala
  1               5                  10                  15

Glu Gly Gln Thr Ser Lys Leu Leu Thr Met Gln Ser Ser Val Thr
                20                  25                  30

Val Gln Glu Gly Leu Cys Val His Val Pro Cys Ser Phe Ser Tyr
                35                  40                  45

Pro Ser His Gly Trp Ile Tyr Pro Gly Pro Val Val His Gly Tyr
                50                  55                  60

Trp Phe Arg Glu Gly Ala Asn Thr Asp Gln Asp Ala Pro Val Ala
                65                  70                  75
Thr Asn Asn Pro Ala Arg Ala Val Trp Glu Glu Thr Arg Asp Arg
                80                  85                  90

Phe His Leu Leu Gly Asp Pro His Thr Lys Asn Cys Thr Leu Ser
                95                 100                 105

Ile Arg Asp Ala Arg Arg Ser Asp Ala Gly Arg Tyr Phe Phe Arg
               110                 115                 120

Met Glu Lys Gly Ser Ile Lys Trp Asn Tyr Lys His His Arg Leu
               125                 130                 135

Ser Val Asn Val Thr Ala Leu Thr His Arg Pro Asn Ile Leu Ile
               140                 145                 150

Pro Gly Thr Leu Glu Ser Gly Cys Pro Gln Asn Leu Thr Cys Ser
               155                 160                 165

Val Pro Trp Ala Cys Glu Gln Gly Thr Pro Pro Met Ile Ser Trp
               170                 175                 180

Ile Gly Thr Ser Val Ser Pro Leu Asp Pro Ser Thr Thr Arg Ser
               185                 190                 195

Ser Val Leu Thr Leu Ile Pro Gln Pro Gln Asp His Gly Thr Ser
               200                 205                 210

Leu Thr Cys Gln Val Thr Phe Pro Gly Ala Ser Val Thr Thr Asn
               215                 220                 225

Lys Thr Val His Leu Asn Val Ser Tyr Pro Pro Gln Asn Leu Thr
               230                 235                 240

Met Thr Val Phe Gln Gly Asp Gly Thr Val Ser Thr Val Leu Gly
               245                 250                 255

Asn Gly Ser Ser Leu Ser Leu Pro Glu Gly Gln Ser Leu Arg Leu
               260                 265                 270

Val Cys Ala Val Asp Ala Val Asp Ser Asn Pro Pro Ala Arg Leu
               275                 280                 285
```

Ser Leu Ser Trp Arg Gly Leu Thr Leu Cys Pro Ser Gln Pro Ser
290 295 300

Asn Pro Gly Val Leu Glu Leu Pro Trp Val His Leu Arg Asp Ala
305 310 315

Ala Glu Phe Thr Cys Arg Ala Gln Asn Pro Leu Gly Ser Gln Gln
320 325 330

Val Tyr Leu Asn Val Ser Leu Gln Ser Lys Ala Thr Ser Gly Val
335 340 345

Thr Gln Gly Val Val Gly Gly Ala Gly Ala Thr Ala Leu Val Phe
350 355 360

Leu Ser Phe Cys Val Ile Phe Val Val Val Arg Ser Cys Arg Lys
365 370 375

Lys Ser Ala Arg Pro Ala Ala Gly Val Gly Asp Thr Gly Ile Glu
380 385 390

Asp Ala Asn Ala Val Arg Gly Ser Ala Ser Gln Gly Pro Leu Thr
395 400 405

Glu Pro Trp Ala Glu Asp Ser Pro Pro Asp Gln Pro Pro Pro Ala
410 415 420

Ser Ala Arg Ser Ser Val Gly Glu Gly Glu Leu Gln Tyr Ala Ser
425 430 435

Leu Ser Phe Gln Met Val Lys Pro Trp Asp Ser Arg Gly Gln Glu
440 445 450

Ala Thr Asp Thr Glu Tyr Ser Glu Ile Lys Ile His Arg
455 460

<210> 87
<211> 1176
<212> DNA
<213> Homo Sapien

<400> 87
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aggagctctc tgtacccaag gaaagtgcag ctgagactca gacaagatta 100

caatgaacca actcagcttc ctgctgtttc tcatagcgac caccagagga 150

tggagtacag atgaggctaa tacttacttc aaggaatgga cctgttcttc 200

gtctccatct ctgcccagaa gctgcaagga aatcaaagac gaatgtccta 250

gtgcatttga tggcctgtat tttctccgca ctgagaatgg tgttatctac 300

cagaccttct gtgacatgac ctctgggggt ggcggctgga ccctggtggc 350

cagcgtgcat gagaatgaca tgcgtgggaa gtgcacggtg ggcgatcgct 400

ggtccagtca gcagggcagc aaagcagact acccagaggg ggacggcaac 450

tgggccaact acaacacctt tggatctgca gaggcggcca cgagcgatga 500

ctacaagaac cctggctact acgacatcca ggccaaggac ctgggcatct 550

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cagaaaacag catcttatta ctcaccctat ggccagcggg aattcactgc 800

gggatttgtt cagttcaggg tatttaataa cgagagagca gccaacgcct 850

tgtgtgctgg aatgagggtc accggatgta acactgagca tcactgcatt 900

ggtggaggag gatactttcc agaggccagt ccccagcagt gtggagattt 950

ttctggtttt gattggagtg gatatggaac tcatgttggt tacagcagca 1000

gccgtgagat aactgaggca gctgtgcttc tattctatcg ttgagagttt 1050

tgtgggaggg aacccagacc tctcctccca accatgagat cccaaggatg 1100

gagaacaact tacccagtag ctagaatgtt aatggcagaa gagaaaacaa 1150

taaatcatat tgactcaaga aaaaaa 1176

<210> 88
<211> 313
<212> PRT
<213> Homo Sapien

<400> 88

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Met Asn Gln Leu Ser Phe Leu Leu Phe Leu Ile Ala Thr Thr Arg
  1               5                  10                  15

Gly Trp Ser Thr Asp Glu Ala Asn Thr Tyr Phe Lys Glu Trp Thr
                20                  25                  30

Cys Ser Ser Ser Pro Ser Leu Pro Arg Ser Cys Lys Glu Ile Lys
                35                  40                  45

Asp Glu Cys Pro Ser Ala Phe Asp Gly Leu Tyr Phe Leu Arg Thr
                50                  55                  60

Glu Asn Gly Val Ile Tyr Gln Thr Phe Cys Asp Met Thr Ser Gly
                65                  70                  75

Gly Gly Gly Trp Thr Leu Val Ala Ser Val His Glu Asn Asp Met
                80                  85                  90
```

Arg Gly Lys Cys Thr Val Gly Asp Arg Trp Ser Ser Gln Gln Gly
95 100 105

Ser Lys Ala Asp Tyr Pro Glu Gly Asp Gly Asn Trp Ala Asn Tyr
110 115 120

Asn Thr Phe Gly Ser Ala Glu Ala Ala Thr Ser Asp Asp Tyr Lys
125 130 135

Asn Pro Gly Tyr Tyr Asp Ile Gln Ala Lys Asp Leu Gly Ile Trp
140 145 150

His Val Pro Asn Lys Ser Pro Met Gln His Trp Arg Asn Ser Ser
155 160 165

Leu Leu Arg Tyr Arg Thr Asp Thr Gly Phe Leu Gln Thr Leu Gly
170 175 180

His Asn Leu Phe Gly Ile Tyr Gln Lys Tyr Pro Val Lys Tyr Gly
185 190 195

Glu Gly Lys Cys Trp Thr Asp Asn Gly Pro Val Ile Pro Val Val
200 205 210

Tyr Asp Phe Gly Asp Ala Gln Lys Thr Ala Ser Tyr Tyr Ser Pro
215 220 225

Tyr Gly Gln Arg Glu Phe Thr Ala Gly Phe Val Gln Phe Arg Val
230 235 240

Phe Asn Asn Glu Arg Ala Ala Asn Ala Leu Cys Ala Gly Met Arg
245 250 255

Val Thr Gly Cys Asn Thr Glu His His Cys Ile Gly Gly Gly Gly
260 265 270

Tyr Phe Pro Glu Ala Ser Pro Gln Gln Cys Gly Asp Phe Ser Gly
275 280 285

Phe Asp Trp Ser Gly Tyr Gly Thr His Val Gly Tyr Ser Ser Ser
290 295 300

Arg Glu Ile Thr Glu Ala Ala Val Leu Leu Phe Tyr Arg
305 310

<210> 89
<211> 759
<212> DNA
<213> Homo Sapien

<400> 89
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tccagcctca gagaccgccg cccttgtccc cgagggccat gggccgggtc 100

tcagggcttg tgccctctcg cttcctgacg ctcctggcgc atctggtggt 150

cgtcatcacc ttattctggt cccgggacag caacatacag gcctgcctgc 200

ctctcacgtt caccccgag gagtatgaca agcaggacat tcagctggtg 250

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cctctcagga gtctccatgt tcaacagcac ccagagcctc atctccattg 350

gggctcactg tagtgcatcc gtggccctgt ccttcttcat attcgagcgt 400

tgggagtgca ctacgtattg gtacattttt gtcttctgca gtgcccttcc 450

agctgtcact gaaatggctt tattcgtcac cgtctttggg ctgaaaaaga 500

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ggcaagggcc gcttcgtatt cctggaagaa ggaaggcata ggcttcggtt 600

ttcccctcgg aaactgcttc tgctggagga tatgtgttgg aataattacg 650

tcttgagtct gggattatcc gcattgtatt tagtgctttg taataaaata 700

tgttttgtag taacattaag acttatatac agttttaggg gacaattaaa 750

aaaaaaaaa 759

<210> 90
<211> 140
<212> PRT
<213> Homo Sapien

<400> 90

Met	Gly	Arg	Val	Ser	Gly	Leu	Val	Pro	Ser	Arg	Phe	Leu	Thr	Leu	
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Leu	Ala	His	Leu	Val	Val	Val	Ile	Thr	Leu	Phe	Trp	Ser	Arg	Asp	
				20				25						30	
Ser	Asn	Ile	Gln	Ala	Cys	Leu	Pro	Leu	Thr	Phe	Thr	Pro	Glu	Glu	
				35				40						45	
Tyr	Asp	Lys	Gln	Asp	Ile	Gln	Leu	Val	Ala	Ala	Leu	Ser	Val	Thr	
				50				55						60	
Leu	Gly	Leu	Phe	Ala	Val	Glu	Leu	Ala	Gly	Phe	Leu	Ser	Gly	Val	
				65				70						75	
Ser	Met	Phe	Asn	Ser	Thr	Gln	Ser	Leu	Ile	Ser	Ile	Gly	Ala	His	
				80				85						90	
Cys	Ser	Ala	Ser	Val	Ala	Leu	Ser	Phe	Phe	Ile	Phe	Glu	Arg	Trp	
				95				100						105	
Glu	Cys	Thr	Thr	Tyr	Trp	Tyr	Ile	Phe	Val	Phe	Cys	Ser	Ala	Leu	
				110				115						120	
Pro	Ala	Val	Thr	Glu	Met	Ala	Leu	Phe	Val	Thr	Val	Phe	Gly	Leu	

125 130 135

Lys Lys Lys Pro Phe
140

<210> 91
<211> 1871
<212> DNA
<213> Homo Sapien

<400> 91
ctgggacccc gaaaagagaa ggggagagcg aggggacgag agcggaggag 50

gaagatgcaa ctgactcgct gctgcttcgt gttcctggtg cagggtagcc 100

tctatctggt catctgtggc caggatgatg gtcctcccgg ctcagaggac 150

cctgagcgtg atgaccacga gggccagccc cggccccggg tgcctcggaa 200

gcggggccac atctcaccta agtcccgccc catggccaat tccactctcc 250

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cccaaccgcc cgaaccacag ccccccaccc tcagccaagg tgaagaaaat 350

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tgctcgtcac agggaagatt gtggaccatg gcaatgggac cttcagcgtc 450

cacttccaac acaatgccac aggccaggga aacatctcca tcagcctcgt 500
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aaccgctgat tgctgacttt tgtgtgaaga atcgtgttct tggagcagga 1850

aataaagctt gccccggggc a 1871

<210> 92
<211> 252
<212> PRT
<213> Homo Sapien
<400> 92

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Met Gln Leu Thr Arg Cys Cys Phe Val Phe Leu Val Gln Gly Ser
  1               5                  10                  15

Leu Tyr Leu Val Ile Cys Gly Gln Asp Asp Gly Pro Pro Gly Ser
              20                  25                  30

Glu Asp Pro Glu Arg Asp Asp His Glu Gly Gln Pro Arg Pro Arg
                  35                  40                  45

Val Pro Arg Lys Arg Gly His Ile Ser Pro Lys Ser Arg Pro Met
                  50                  55                  60

Ala Asn Ser Thr Leu Leu Gly Leu Leu Ala Pro Pro Gly Glu Ala
                  65                  70                  75

Trp Gly Ile Leu Gly Gln Pro Pro Asn Arg Pro Asn His Ser Pro
                  80                  85                  90

Pro Pro Ser Ala Lys Val Lys Lys Ile Phe Gly Trp Gly Asp Phe
                  95                 100                 105

Tyr Ser Asn Ile Lys Thr Val Ala Leu Asn Leu Leu Val Thr Gly
                 110                 115                 120
```

Lys Ile Val Asp His Gly Asn Gly Thr Phe Ser Val His Phe Gln
125 130 135

His Asn Ala Thr Gly Gln Gly Asn Ile Ser Ile Ser Leu Val Pro
140 145 150

Pro Ser Lys Ala Val Glu Phe His Gln Glu Gln Gln Ile Phe Ile
155 160 165

Glu Ala Lys Ala Ser Lys Ile Phe Asn Cys Arg Met Glu Trp Glu
170 175 180

Lys Val Glu Arg Gly Arg Arg Thr Ser Leu Cys Thr His Asp Pro
185 190 195

Ala Lys Ile Cys Ser Arg Asp His Ala Gln Ser Ser Ala Thr Trp
200 205 210

Ser Cys Ser Gln Pro Phe Lys Val Val Cys Val Tyr Ile Ala Phe
215 220 225

Tyr Ser Thr Asp Tyr Arg Leu Val Gln Lys Val Cys Pro Asp Tyr
230 235 240

Asn Tyr His Ser Asp Thr Pro Tyr Tyr Pro Ser Gly
245 250

<210> 93
<211> 902
<212> DNA
<213> Homo Sapien

<400> 93
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tatcatcttc ctcatcgccg gagctttctt ctggttggtg tctctactga 150

tttcgtccct tgtttggttc atggcaagag tcattattga caacaaagat 200

ggaccaacac agaaatatct gctgatcttt ggagcgtttg tctctgtcta 250

tatccaagaa atgttccgat ttgcatatta taaactctta aaaaaagcca 300

gtgaaggttt gaagagtata aacccaggtg agacagcacc ctctatgcga 350

ctgctggcct atgtttctgg cttgggcttt ggaatcatga gtggagtatt 400

ttcctttgtg aataccctat ctgactcctt ggggccaggc acagtgggca 450

ttcatggaga ttctcctcaa ttcttccttt attcagcttt catgacgctg 500

gtcattatct tgctgcatgt attctggggc attgtatttt ttgatggctg 550

tgagaagaaa aagtggggca tcctccttat cgttctcctg acccacctgc 600

tggtgtcagc ccagaccttc ataagttctt attatggaat aaacctggcg 650

tcagcattta taatcctggt gctcatgggc acctgggcat tcttagctgc 700

gggaggcagc tgccgaagcc tgaaactctg cctgctctgc caagacaaga 750

actttcttct ttacaaccag cgctccagat aacctcaggg aaccagcact 800

tcccaaaccg cagactacat ctttagagga agcacaactg tgccttttc 850

tgaaaatccc tttttctggt ggaattgaga aagaaataaa actatgcaga 900

ta 902

<210> 94
<211> 257
<212> PRT
<213> Homo Sapien

<400> 94

Met	Thr	Ala	Ala	Val	Phe	Phe	Gly	Cys	Ala	Phe	Ile	Ala	Phe	Gly
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Pro	Ala	Leu	Ala	Leu	Tyr	Val	Phe	Thr	Ile	Ala	Ile	Glu	Pro	Leu
				20				25					30	
Arg	Ile	Ile	Phe	Leu	Ile	Ala	Gly	Ala	Phe	Phe	Trp	Leu	Val	Ser
				35				40					45	
Leu	Leu	Ile	Ser	Ser	Leu	Val	Trp	Phe	Met	Ala	Arg	Val	Ile	Ile
				50				55					60	
Asp	Asn	Lys	Asp	Gly	Pro	Thr	Gln	Lys	Tyr	Leu	Leu	Ile	Phe	Gly
				65				70					75	
Ala	Phe	Val	Ser	Val	Tyr	Ile	Gln	Glu	Met	Phe	Arg	Phe	Ala	Tyr
				80				85					90	
Tyr	Lys	Leu	Leu	Lys	Lys	Ala	Ser	Glu	Gly	Leu	Lys	Ser	Ile	Asn
				95				100					105	
Pro	Gly	Glu	Thr	Ala	Pro	Ser	Met	Arg	Leu	Leu	Ala	Tyr	Val	Ser
				110				115					120	
Gly	Leu	Gly	Phe	Gly	Ile	Met	Ser	Gly	Val	Phe	Ser	Phe	Val	Asn
				125				130					135	
Thr	Leu	Ser	Asp	Ser	Leu	Gly	Pro	Gly	Thr	Val	Gly	Ile	His	Gly
				140				145					150	
Asp	Ser	Pro	Gln	Phe	Phe	Leu	Tyr	Ser	Ala	Phe	Met	Thr	Leu	Val
				155				160					165	
Ile	Ile	Leu	Leu	His	Val	Phe	Trp	Gly	Ile	Val	Phe	Phe	Asp	Gly
				170				175					180	

Cys Glu Lys Lys Lys Trp Gly Ile Leu Leu Ile Val Leu Leu Thr
185 190 195

His Leu Leu Val Ser Ala Gln Thr Phe Ile Ser Ser Tyr Tyr Gly
200 205 210

Ile Asn Leu Ala Ser Ala Phe Ile Ile Leu Val Leu Met Gly Thr
215 220 225

Trp Ala Phe Leu Ala Ala Gly Gly Ser Cys Arg Ser Leu Lys Leu
230 235 240

Cys Leu Leu Cys Gln Asp Lys Asn Phe Leu Leu Tyr Asn Gln Arg
245 250 255

Ser Arg

<210> 95
<211> 1073
<212> DNA
<213> Homo Sapien

<400> 95
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aacctgcttt gggactccct cccacaaaac tggctccgga tcagggaaca 200

ctaccaaacc aacagcagtc aaatcaggtc tttccttctt taagtctgat 250

accattaaca cagatgctca cactggggcc agatctgcat ctgttaaatc 300

ctgctgcagg aatgacacct ggtacccaga cccacccatt gaccctggga 350

gggttgaatg tacaacagca actgcaccca catgtgttac caatttttgt 400

cacacaactt ggagcccagg gcactatcct aagctcagag gaattgccac 450

aaatcttcac gagcctcatc atccattcct tgttcccggg aggcatcctg 500

cccaccagtc aggcaggggc taatccagat gtccaggatg gaagccttcc 550

agcaggagga gcaggtgtaa atcctgccac ccagggaacc ccagcaggcc 600

gcctcccaac tcccagtggc acagatgacg actttgcagt gaccacccct 650

gcaggcatcc aaaggagcac acatgccatc gaggaagcca ccacagaatc 700

agcaaatgga attcagtaag ctgtttcaaa ttttttcaac taagctgcct 750

cgaatttggt gatacatgtg aatctttatc attgattata ttatggaata 800

gattgagaca cattggatag tcttagaaga aattaattct taatttacct 850

gaaaatattc ttgaaatttc agaaaatatg ttctatgtag agaatcccaa 900

cttttaaaaa caataattca atggataaat ctgtctttga aatataacat 950

tatgctgcct ggatgatatg catattaaaa catatttgga aaactggaaa 1000

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1050

aaaaaaaaaa aaaaaaaaaa aaa 1073

<210> 96
<211> 209
<212> PRT
<213> Homo Sapien

<400> 96

Met	Arg	Ser	Thr	Ile	Leu	Leu	Phe	Cys	Leu	Leu	Gly	Ser	Thr	Arg
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Ser	Leu	Pro	Gln	Leu	Lys	Pro	Ala	Leu	Gly	Leu	Pro	Pro	Thr	Lys
				20				25						30
Leu	Ala	Pro	Asp	Gln	Gly	Thr	Leu	Pro	Asn	Gln	Gln	Gln	Ser	Asn
				35				40						45
Gln	Val	Phe	Pro	Ser	Leu	Ser	Leu	Ile	Pro	Leu	Thr	Gln	Met	Leu
				50				55						60
Thr	Leu	Gly	Pro	Asp	Leu	His	Leu	Leu	Asn	Pro	Ala	Ala	Gly	Met
				65				70						75
Thr	Pro	Gly	Thr	Gln	Thr	His	Pro	Leu	Thr	Leu	Gly	Gly	Leu	Asn
				80				85						90
Val	Gln	Gln	Gln	Leu	His	Pro	His	Val	Leu	Pro	Ile	Phe	Val	Thr
				95				100						105
Gln	Leu	Gly	Ala	Gln	Gly	Thr	Ile	Leu	Ser	Ser	Glu	Glu	Leu	Pro
				110				115						120
Gln	Ile	Phe	Thr	Ser	Leu	Ile	Ile	His	Ser	Leu	Phe	Pro	Gly	Gly
				125				130						135
Ile	Leu	Pro	Thr	Ser	Gln	Ala	Gly	Ala	Asn	Pro	Asp	Val	Gln	Asp
				140				145						150
Gly	Ser	Leu	Pro	Ala	Gly	Gly	Ala	Gly	Val	Asn	Pro	Ala	Thr	Gln
				155				160						165
Gly	Thr	Pro	Ala	Gly	Arg	Leu	Pro	Thr	Pro	Ser	Gly	Thr	Asp	Asp
				170				175						180
Asp	Phe	Ala	Val	Thr	Thr	Pro	Ala	Gly	Ile	Gln	Arg	Ser	Thr	His
				185				190						195

Ala Ile Glu Glu Ala Thr Thr Glu Ser Ala Asn Gly Ile Gln

200 205

<210> 97
<211> 2848
<212> DNA
<213> Homo Sapien

<400> 97
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ttgggcgctg gagggcctgt cctgaccatg gtccctgcct ggctgtggct 150

gctttgtgtc tccgtccccc aggctctccc caaggcccag cctgcagagc 200

tgtctgtgga agttccagaa aactatggtg gaaatttccc tttatacctg 250

accaagttgc cgctgccccg tgaggggggct gaaggccaga tcgtgctgtc 300

aggggactca ggcaaggcaa ctgagggccc atttgctatg gatccagatt 350

ctggcttcct gctggtgacc agggccctgg accgagagga gcaggcagag 400

taccagctac aggtcaccct ggagatgcag gatggacatg tcttgtgggg 450

tccacagcct gtgcttgtgc acgtgaagga tgagaatgac caggtgcccc 500

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caggtggacc ccacttcagg cagtgtgacg ctgggggtgc tcccactccg 1350

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gctccaaatg tcagggtgtt tgcccaataa taaagcccca gagaactggg 2800

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<210> 98
<211> 807
<212> PRT
<213> Homo Sapien

<400> 98

Met	Val	Pro	Ala	Trp	Leu	Trp	Leu	Leu	Cys	Val	Ser	Val	Pro	Gln
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Ala	Leu	Pro	Lys	Ala	Gln	Pro	Ala	Glu	Leu	Ser	Val	Glu	Val	Pro
			20					25					30	
Glu	Asn	Tyr	Gly	Gly	Asn	Phe	Pro	Leu	Tyr	Leu	Thr	Lys	Leu	Pro
			35					40					45	
Leu	Pro	Arg	Glu	Gly	Ala	Glu	Gly	Gln	Ile	Val	Leu	Ser	Gly	Asp
			50					55					60	
Ser	Gly	Lys	Ala	Thr	Glu	Gly	Pro	Phe	Ala	Met	Asp	Pro	Asp	Ser
			65					70					75	
Gly	Phe	Leu	Leu	Val	Thr	Arg	Ala	Leu	Asp	Arg	Glu	Glu	Gln	Ala
			80					85					90	
Glu	Tyr	Gln	Leu	Gln	Val	Thr	Leu	Glu	Met	Gln	Asp	Gly	His	Val
			95					100					105	
Leu	Trp	Gly	Pro	Gln	Pro	Val	Leu	Val	His	Val	Lys	Asp	Glu	Asn
			110					115					120	
Asp	Gln	Val	Pro	His	Phe	Ser	Gln	Ala	Ile	Tyr	Arg	Ala	Arg	Leu
			125					130					135	
Ser	Arg	Gly	Thr	Arg	Pro	Gly	Ile	Pro	Phe	Leu	Phe	Leu	Glu	Ala
			140					145					150	
Ser	Asp	Arg	Asp	Glu	Pro	Gly	Thr	Ala	Asn	Ser	Asp	Leu	Arg	Phe
			155					160					165	
His	Ile	Leu	Ser	Gln	Ala	Pro	Ala	Gln	Pro	Ser	Pro	Asp	Met	Phe
			170					175					180	
Gln	Leu	Glu	Pro	Arg	Leu	Gly	Ala	Leu	Ala	Leu	Ser	Pro	Lys	Gly
			185					190					195	
Ser	Thr	Ser	Leu	Asp	His	Ala	Leu	Glu	Arg	Thr	Tyr	Gln	Leu	Leu
			200					205					210	
Val	Gln	Val	Lys	Asp	Met	Gly	Asp	Gln	Ala	Ser	Gly	His	Gln	Ala

215 220 225

Thr Ala Thr Val Glu Val Ser Ile Ile Glu Ser Thr Trp Val Ser
230 235 240

Leu Glu Pro Ile His Leu Ala Glu Asn Leu Lys Val Leu Tyr Pro
245 250 255

His His Met Ala Gln Val His Trp Ser Gly Gly Asp Val His Tyr
260 265 270

His Leu Glu Ser His Pro Pro Gly Pro Phe Glu Val Asn Ala Glu
275 280 285

Gly Asn Leu Tyr Val Thr Arg Glu Leu Asp Arg Glu Ala Gln Ala
290 295 300

Glu Tyr Leu Leu Gln Val Arg Ala Gln Asn Ser His Gly Glu Asp
305 310 315

Tyr Ala Ala Pro Leu Glu Leu His Val Leu Val Met Asp Glu Asn
320 325 330

Asp Asn Val Pro Ile Cys Pro Pro Arg Asp Pro Thr Val Ser Ile
335 340 345

Pro Glu Leu Ser Pro Pro Gly Thr Glu Val Thr Arg Leu Ser Ala
350 355 360

Glu Asp Ala Asp Ala Pro Gly Ser Pro Asn Ser His Val Val Tyr
365 370 375

Gln Leu Leu Ser Pro Glu Pro Glu Asp Gly Val Glu Gly Arg Ala
380 385 390

Phe Gln Val Asp Pro Thr Ser Gly Ser Val Thr Leu Gly Val Leu
395 400 405

Pro Leu Arg Ala Gly Gln Asn Ile Leu Leu Leu Val Leu Ala Met
410 415 420

Asp Leu Ala Gly Ala Glu Gly Gly Phe Ser Ser Thr Cys Glu Val
425 430 435

Glu Val Ala Val Thr Asp Ile Asn Asp His Ala Pro Glu Phe Ile
440 445 450

Thr Ser Gln Ile Gly Pro Ile Ser Leu Pro Glu Asp Val Glu Pro
455 460 465

Gly Thr Leu Val Ala Met Leu Thr Ala Ile Asp Ala Asp Leu Glu
470 475 480

Pro Ala Phe Arg Leu Met Asp Phe Ala Ile Glu Arg Gly Asp Thr
485 490 495

Glu Gly Thr Phe Gly Leu Asp Trp Glu Pro Asp Ser Gly His Val

500 505 510

Arg Leu Arg Leu Cys Lys Asn Leu Ser Tyr Glu Ala Ala Pro Ser
515 520 525

His Glu Val Val Val Val Val Gln Ser Val Ala Lys Leu Val Gly
530 535 540

Pro Gly Pro Gly Pro Gly Ala Thr Ala Thr Val Thr Val Leu Val
545 550 555

Glu Arg Val Met Pro Pro Pro Lys Leu Asp Gln Glu Ser Tyr Glu
560 565 570

Ala Ser Val Pro Ile Ser Ala Pro Ala Gly Ser Phe Leu Leu Thr
575 580 585

Ile Gln Pro Ser Asp Pro Ile Ser Arg Thr Leu Arg Phe Ser Leu
590 595 600

Val Asn Asp Ser Glu Gly Trp Leu Cys Ile Glu Lys Phe Ser Gly
605 610 615

Glu Val His Thr Ala Gln Ser Leu Gln Gly Ala Gln Pro Gly Asp
620 625 630

Thr Tyr Thr Val Leu Val Glu Ala Gln Asp Thr Ala Leu Thr Leu
635 640 645

Ala Pro Val Pro Ser Gln Tyr Leu Cys Thr Pro Arg Gln Asp His
650 655 660

Gly Leu Ile Val Ser Gly Pro Ser Lys Asp Pro Asp Leu Ala Ser
665 670 675

Gly His Gly Pro Tyr Ser Phe Thr Leu Gly Pro Asn Pro Thr Val
680 685 690

Gln Arg Asp Trp Arg Leu Gln Thr Leu Asn Gly Ser His Ala Tyr
695 700 705

Leu Thr Leu Ala Leu His Trp Val Glu Pro Arg Glu His Ile Ile
710 715 720

Pro Val Val Val Ser His Asn Ala Gln Met Trp Gln Leu Leu Val
725 730 735

Arg Val Ile Val Cys Arg Cys Asn Val Glu Gly Gln Cys Met Arg
740 745 750

Lys Val Gly Arg Met Lys Gly Met Pro Thr Lys Leu Ser Ala Val
755 760 765

Gly Ile Leu Val Gly Thr Leu Val Ala Ile Gly Ile Phe Leu Ile
770 775 780

Leu Ile Phe Thr His Trp Thr Met Ser Arg Lys Lys Asp Pro Asp

785 790 795

Gln Pro Ala Asp Ser Val Pro Leu Lys Ala Thr Val
800 805

<210> 99
<211> 2436
<212> DNA
<213> Homo Sapien

<400> 99
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ctttctcaag aatcctctgt tctttgccct ctaaagtctt ggtacatcta 200

ggacccaggc atcttgcttt ccagccacaa agagacagat gaagatgcag 250

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tctccagtgg agccagcaca gccaccaact ctgggtccag tgtgacctcc 400

agtggggtca gcacagccac catctcaggg tccagcgtga cctccaatgg 450

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aatactatat tgctcattta gctaagaaat aaatacatct catctaacac 2250

acacgacaaa gagaagctgt gcttgccccg gggtgggtat ctagctctga 2300

gatgaactca gttataggag aaaacctcca tgctggactc catctggcat 2350

tcaaaatctc cacagtaaaa tccaaagacc tcaaaaaaaa aaaaaaaaaa 2400

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 2436

<210> 100
<211> 596
<212> PRT
<213> Homo Sapien

<400> 100

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Met Lys Met Gln Lys Gly Asn Val Leu Leu Met Phe Gly Leu Leu
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Leu His Leu Glu Ala Ala Thr Asn Ser Asn Glu Thr Ser Thr Ser
                 20                  25                  30

Ala Asn Thr Gly Ser Ser Val Ile Ser Ser Gly Ala Ser Thr Ala
                 35                  40                  45
Thr Asn Ser Gly Ser Ser Val Thr Ser Ser Gly Val Ser Thr Ala
                 50                  55                  60

Thr Ile Ser Gly Ser Ser Val Thr Ser Asn Gly Val Ser Ile Val
                 65                  70                  75

Thr Asn Ser Glu Phe His Thr Thr Ser Ser Gly Ile Ser Thr Ala
                 80                  85                  90

Thr Asn Ser Glu Phe Ser Thr Ala Ser Ser Gly Ile Ser Ile Ala
                 95                 100                 105

Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Ser Thr Ala
                110                 115                 120

Thr Asn Ser Glu Ser Ser Thr Pro Ser Ser Gly Ala Ser Thr Val
                125                 130                 135

Thr Asn Ser Gly Ser Ser Val Thr Ser Ser Gly Ala Ser Thr Ala
                140                 145                 150

Thr Asn Ser Glu Ser Ser Thr Val Ser Ser Arg Ala Ser Thr Ala
                155                 160                 165

Thr Asn Ser Glu Ser Ser Thr Leu Ser Ser Gly Ala Ser Thr Ala
                170                 175                 180

Thr Asn Ser Asp Ser Ser Thr Thr Ser Ser Gly Ala Ser Thr Ala
                185                 190                 195

Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Ser Thr Ala
                200                 205                 210

Thr Asn Ser Glu Ser Ser Thr Val Ser Ser Arg Ala Ser Thr Ala
                215                 220                 225

Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Ser Thr Ala
                230                 235                 240

Thr Asn Ser Glu Ser Arg Thr Thr Ser Asn Gly Ala Gly Thr Ala
                245                 250                 255

Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Ser Thr Ala
                260                 265                 270

Thr Asn Ser Asp Ser Ser Thr Val Ser Ser Gly Ala Ser Thr Ala
                275                 280                 285
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Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Ser Thr Ala
290 295 300

Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Ser Thr Ala
305 310 315

Thr Asn Ser Asp Ser Ser Thr Thr Ser Ser Gly Ala Gly Thr Ala
320 325 330

Thr Asn Ser Glu Ser Ser Thr Val Ser Ser Gly Ile Ser Thr Val
335 340 345

Thr Asn Ser Glu Ser Ser Thr Pro Ser Ser Gly Ala Asn Thr Ala
350 355 360

Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Asn Thr Ala
365 370 375

Thr Asn Ser Glu Ser Ser Thr Val Ser Ser Gly Ala Ser Thr Ala
380 385 390

Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Val Ser Thr Ala
395 400 405

Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Ser Thr Ala
410 415 420

Thr Asn Ser Asp Ser Ser Thr Thr Ser Ser Glu Ala Ser Thr Ala
425 430 435

Thr Asn Ser Glu Ser Ser Thr Val Ser Ser Gly Ile Ser Thr Val
440 445 450

Thr Asn Ser Glu Ser Ser Thr Thr Ser Ser Gly Ala Asn Thr Ala
455 460 465

Thr Asn Ser Gly Ser Ser Val Thr Ser Ala Gly Ser Gly Thr Ala
470 475 480

Ala Leu Thr Gly Met His Thr Thr Ser His Ser Ala Ser Thr Ala
485 490 495

Val Ser Glu Ala Lys Pro Gly Gly Ser Leu Val Pro Trp Glu Ile
500 505 510

Phe Leu Ile Thr Leu Val Ser Val Val Ala Ala Val Gly Leu Phe
515 520 525

Ala Gly Leu Phe Phe Cys Val Arg Asn Ser Leu Ser Leu Arg Asn
530 535 540

Thr Phe Asn Thr Ala Val Tyr His Pro His Gly Leu Asn His Gly
545 550 555

Leu Gly Pro Gly Pro Gly Gly Asn His Gly Ala Pro His Arg Pro
560 565 570

Arg Trp Ser Pro Asn Trp Phe Trp Arg Arg Pro Val Ser Ser Ile
575 580 585

Ala Met Glu Met Ser Gly Arg Asn Ser Gly Pro
590 595

<210> 101
<211> 1728
<212> DNA
<213> Homo Sapien

<400> 101
ggccggacgc ctccgcgtta cgggatgaat taacggcggg ttccgcacgg 50

aggttgtgac ccctacggag ccccagcttg cccacgcacc ccactcggcg 100
tcgcgcggcg tgccctgctt gtcacaggtg ggaggctgga actatcaggc 150

tgaaaaacag agtgggtact ctcttctggg aagctggcaa caaatggatg 200

atgtgatata tgcattccag gggaagggaa attgtggtgc ttctgaaccc 250

atggtcaatt aacgaggcag tttctagcta ctgcacgtac ttcataaagc 300

aggactctaa aagctttgga atcatggtgt catggaaagg gatttacttt 350

atactgactc tgttttgggg aagctttttt ggaagcattt tcatgctgag 400

tccctttta cctttgatgt ttgtaaaccc atcttggtat cgctggatca 450

acaaccgcct tgtggcaaca tggctcaccc tacctgtggc attattggag 500

accatgtttg gtgtaaaagt gattataact ggggatgcat ttgttcctgg 550

agaaagaagt gtcattatca tgaaccatcg gacaagaatg gactggatgt 600

tcctgtggaa ttgcctgatg cgatatagct acctcagatt ggagaaaatt 650

tgcctcaaag cgagtctcaa aggtgttcct ggatttggtt gggccatgca 700

ggctgctgcc tatatcttca ttcataggaa atggaaggat gacaagagcc 750

atttcgaaga catgattgat tacttttgtg atattcacga accacttcaa 800

ctcctcatat tcccagaagg gactgatctc acagaaaaca gcaagtctcg 850

aagtaatgca tttgctgaaa aaaatggact tcagaaatat gaatatgttt 900

tacatccaag aactacaggc tttacttttg tggtagaccg tctaagagaa 950

ggtaagaacc ttgatgctgt ccatgatatc actgtggcgt atcctcacaa 1000

cattcctcaa tcagagaagc acctcctcca aggagacttt cccagggaaa 1050

tccactttca cgtccaccgg tatccaatag acaccctccc cacatccaag 1100

gaggaccttc aactctggtg ccacaaacgg tgggaagaga aagaagagag 1150

gctgcgttcc ttctatcaag gggagaagaa tttttatttt accggacaga 1200

gtgtcattcc accttgcaag tctgaactca gggtccttgt ggtcaaattg 1250

ctctctatac tgtattggac cctgttcagc cctgcaatgt gcctactcat 1300

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ttgtgctgca agagagaata tttggtggac tggagatcat agaacttgca 1400

tgttaccgac ttttacacaa acagccacat ttaaattcaa agaaaaatga 1450

gtaagattat aaggtttgcc atgtgaaaac ctagagcata ttttggaaat 1500

gttctaaacc tttctaagct cagatgcatt tttgcatgac tatgtcgaat 1550

atttcttact gccatcatta tttgttaaag atattttgca cttaattttg 1600

tgggaaaaat attgctacaa tttttttttaa tctctgaatg taatttcgat 1650

actgtgtaca tagcagggag tgatcggggt gaaataactt gggccagaat 1700

attattaaac aatcatcagg cttttaaa 1728

<210> 102
<211> 414
<212> PRT
<213> Homo Sapien

<400> 102

Met	His	Ser	Arg	Gly	Arg	Glu	Ile	Val	Val	Leu	Leu	Asn	Pro	Trp	
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Ser	Ile	Asn	Glu	Ala	Val	Ser	Ser	Tyr	Cys	Thr	Tyr	Phe	Ile	Lys	
				20					25					30	
Gln	Asp	Ser	Lys	Ser	Phe	Gly	Ile	Met	Val	Ser	Trp	Lys	Gly	Ile	
				35					40					45	
Tyr	Phe	Ile	Leu	Thr	Leu	Phe	Trp	Gly	Ser	Phe	Phe	Gly	Ser	Ile	
				50					55					60	
Phe	Met	Leu	Ser	Pro	Phe	Leu	Pro	Leu	Met	Phe	Val	Asn	Pro	Ser	
				65					70					75	
Trp	Tyr	Arg	Trp	Ile	Asn	Asn	Arg	Leu	Val	Ala	Thr	Trp	Leu	Thr	
				80					85					90	
Leu	Pro	Val	Ala	Leu	Leu	Glu	Thr	Met	Phe	Gly	Val	Lys	Val	Ile	
				95					100					105	
Ile	Thr	Gly	Asp	Ala	Phe	Val	Pro	Gly	Glu	Arg	Ser	Val	Ile	Ile	
				110					115					120	
Met	Asn	His	Arg	Thr	Arg	Met	Asp	Trp	Met	Phe	Leu	Trp	Asn	Cys	
				125					130					135	

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Leu Met Arg Tyr Ser Tyr Leu Arg Leu Glu Lys Ile Cys Leu Lys
                140                 145                 150

Ala Ser Leu Lys Gly Val Pro Gly Phe Gly Trp Ala Met Gln Ala
                155                 160                 165

Ala Ala Tyr Ile Phe Ile His Arg Lys Trp Lys Asp Asp Lys Ser
                170                 175                 180

His Phe Glu Asp Met Ile Asp Tyr Phe Cys Asp Ile His Glu Pro
                185                 190                 195

Leu Gln Leu Leu Ile Phe Pro Glu Gly Thr Asp Leu Thr Glu Asn
                200                 205                 210

Ser Lys Ser Arg Ser Asn Ala Phe Ala Glu Lys Asn Gly Leu Gln
                215                 220                 225

Lys Tyr Glu Tyr Val Leu His Pro Arg Thr Thr Gly Phe Thr Phe
                230                 235                 240

Val Val Asp Arg Leu Arg Glu Gly Lys Asn Leu Asp Ala Val His
                245                 250                 255

Asp Ile Thr Val Ala Tyr Pro His Asn Ile Pro Gln Ser Glu Lys
                260                 265                 270

His Leu Leu Gln Gly Asp Phe Pro Arg Glu Ile His Phe His Val
                275                 280                 285

His Arg Tyr Pro Ile Asp Thr Leu Pro Thr Ser Lys Glu Asp Leu
                290                 295                 300

Gln Leu Trp Cys His Lys Arg Trp Glu Glu Lys Glu Glu Arg Leu
                305                 310                 315

Arg Ser Phe Tyr Gln Gly Glu Lys Asn Phe Tyr Phe Thr Gly Gln
                320                 325                 330

Ser Val Ile Pro Pro Cys Lys Ser Glu Leu Arg Val Leu Val Val
                335                 340                 345

Lys Leu Leu Ser Ile Leu Tyr Trp Thr Leu Phe Ser Pro Ala Met
                350                 355                 360

Cys Leu Leu Ile Tyr Leu Tyr Ser Leu Val Lys Trp Tyr Phe Ile
                365                 370                 375

Ile Thr Ile Val Ile Phe Val Leu Gln Glu Arg Ile Phe Gly Gly
                380                 385                 390

Leu Glu Ile Ile Glu Leu Ala Cys Tyr Arg Leu Leu His Lys Gln
                395                 400                 405

Pro His Leu Asn Ser Lys Lys Asn Glu
                410
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<210> 103
<211> 2403
<212> DNA
<213> Homo Sapien

<400> 103
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acagctggcc tgacctccaa atcatccatc cacccctgct gtcatctgtt 100

ttcatagtgt gagatcaacc cacaggaata tccatggctt ttgtgctcat 150

tttggttctc agtttctacg agctggtgtc aggacagtgg caagtcactg 200

gaccgggcaa gtttgtccag gccttggtgg gggaggacgc cgtgttctcc 250

tgctccctct ttcctgagac cagtgcagag gctatggaag tgcggttctt 300

caggaatcag ttccatgctg tggtccacct ctacagagat ggggaagact 350

gggaatctaa gcagatgcca cagtatcgag ggagaactga gtttgtgaag 400

gactccattg caggggggcg tgtctctcta aggctaaaaa acatcactcc 450

ctcggacatc ggcctgtatg ggtgctggtt cagttcccag atttacgatg 500

aggaggccac ctgggagctg cgggtggcag cactgggctc acttcctctc 550

atttccatcg tgggatatgt tgacggaggt atccagttac tctgcctgtc 600

ctcaggctgg ttccccccagc ccacagccaa gtggaaaggt ccacaaggac 650

aggatttgtc ttcagactcc agagcaaatg cagatgggta cagcctgtat 700

gatgtggaga tctccattat agtccaggaa aatgctggga gcatattgtg 750

ttccatccac cttgctgagc agagtcatga ggtggaatcc aaggtattga 800

taggagagac gtttttccag ccctcacctt ggcgcctggc ttctatttta 850

ctcgggttac tctgtggtgc cctgtgtggt gttgtcatgg ggatgataat 900

tgttttcttc aaatccaaag ggaaaatcca ggcggaactg gactggagaa 950

gaaagcacgg acaggcagaa ttgagagacg cccggaaaca cgcagtggag 1000

gtgactctgg atccagagac ggctcacccg aagctctgcg tttctgatct 1050

gaaaactgta acccatagaa aagctcccca ggaggtgcct cactctgaga 1100

agagatttac aaggaagagt gtggtggctt ctcagggttt ccaagcaggg 1150

agacattact gggaggtgga cgtgggacaa aatgtagggt ggtatgtggg 1200

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ccaacaatgg gtattgggtc ctcagactga caacagaaca tttgtatttc 1300

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caaatgacca gtcccttatt tataccctgc tgacatgtca gtttgaaggc 1450

ttgttgagac cctatatcca gcatgcgatg tatgacgagg aaaaggggac 1500

tcccatattc atatgtccag tgtcctgggg atgagacaga gaagaccctg 1550

cttaaagggc cccacaccac agacccagac acagccaagg gagagtgctc 1600

ccgacaggtg gccccagctt cctctccgga gcctgcgcac agagagtcac 1650

gccccccact ctcctttagg gagctgaggt tcttctgccc tgagccctgc 1700

agcagcggca gtcacagctt ccagatgagg ggggattggc ctgaccctgt 1750

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cacaacctcc caggctcctc atttgctagt cacggacagt gattcctgcc 1900

tcacaggtga agattaaaga gacaacgaat gtgaatcatg cttgcaggtt 1950

tgagggcaca gtgtttgcta atgatgtgtt tttatattat acattttccc 2000

accataaact ctgtttgctt attccacatt aatttacttt tctctatacc 2050

aaatcaccca tggaatagtt attgaacacc tgctttgtga ggctcaaaga 2100

ataaagagga ggtaggattt ttcactgatt ctataagccc agcattacct 2150

gataccaaaa ccaggcaaag aaaacagaag aagaggaagg aaaactacag 2200

gtccatatcc ctcattaaca cagacacaaa aattctaaat aaaattttaa 2250

caaattaaac taaacaatat atttaaagat gatatataac tactcagtgt 2300

ggtttgtccc acaaatgcag agttggttta atatttaaat atcaaccagt 2350

gtaattcagc acattaataa agtaaaaaag aaaaccataa aaaaaaaaaa 2400

aaa 2403

<210> 104
<211> 466
<212> PRT
<213> Homo Sapien

<400> 104
Met Ala Phe Val Leu Ile Leu Val Leu Ser Phe Tyr Glu Leu Val
1 5 10 15

Ser Gly Gln Trp Gln Val Thr Gly Pro Gly Lys Phe Val Gln Ala

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                 20                  25                  30

Leu Val Gly Glu Asp Ala Val Phe Ser Cys Ser Leu Phe Pro Glu
                 35                  40                  45

Thr Ser Ala Glu Ala Met Glu Val Arg Phe Phe Arg Asn Gln Phe
                 50                  55                  60

His Ala Val Val His Leu Tyr Arg Asp Gly Glu Asp Trp Glu Ser
                 65                  70                  75

Lys Gln Met Pro Gln Tyr Arg Gly Arg Thr Glu Phe Val Lys Asp
                 80                  85                  90

Ser Ile Ala Gly Gly Arg Val Ser Leu Arg Leu Lys Asn Ile Thr
                 95                 100                 105

Pro Ser Asp Ile Gly Leu Tyr Gly Cys Trp Phe Ser Ser Gln Ile
                110                 115                 120

Tyr Asp Glu Glu Ala Thr Trp Glu Leu Arg Val Ala Ala Leu Gly
                125                 130                 135

Ser Leu Pro Leu Ile Ser Ile Val Gly Tyr Val Asp Gly Gly Ile
                140                 145                 150

Gln Leu Leu Cys Leu Ser Ser Gly Trp Phe Pro Gln Pro Thr Ala
                155                 160                 165

Lys Trp Lys Gly Pro Gln Gly Gln Asp Leu Ser Ser Asp Ser Arg
                170                 175                 180

Ala Asn Ala Asp Gly Tyr Ser Leu Tyr Asp Val Glu Ile Ser Ile
                185                 190                 195

Ile Val Gln Glu Asn Ala Gly Ser Ile Leu Cys Ser Ile His Leu
                200                 205                 210

Ala Glu Gln Ser His Glu Val Glu Ser Lys Val Leu Ile Gly Glu
                215                 220                 225

Thr Phe Phe Gln Pro Ser Pro Trp Arg Leu Ala Ser Ile Leu Leu
                230                 235                 240

Gly Leu Leu Cys Gly Ala Leu Cys Gly Val Val Met Gly Met Ile
                245                 250                 255

Ile Val Phe Phe Lys Ser Lys Gly Lys Ile Gln Ala Glu Leu Asp
                260                 265                 270

Trp Arg Arg Lys His Gly Gln Ala Glu Leu Arg Asp Ala Arg Lys
                275                 280                 285

His Ala Val Glu Val Thr Leu Asp Pro Glu Thr Ala His Pro Lys
                290                 295                 300

Leu Cys Val Ser Asp Leu Lys Thr Val Thr His Arg Lys Ala Pro
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305 310 315

Gln Glu Val Pro His Ser Glu Lys Arg Phe Thr Arg Lys Ser Val
320 325 330

Val Ala Ser Gln Gly Phe Gln Ala Gly Arg His Tyr Trp Glu Val
335 340 345

Asp Val Gly Gln Asn Val Gly Trp Tyr Val Gly Val Cys Arg Asp
350 355 360

Asp Val Asp Arg Gly Lys Asn Asn Val Thr Leu Ser Pro Asn Asn
365 370 375

Gly Tyr Trp Val Leu Arg Leu Thr Thr Glu His Leu Tyr Phe Thr
380 385 390

Phe Asn Pro His Phe Ile Ser Leu Pro Pro Ser Thr Pro Pro Thr
395 400 405

Arg Val Gly Val Phe Leu Asp Tyr Glu Gly Gly Thr Ile Ser Phe
410 415 420

Phe Asn Thr Asn Asp Gln Ser Leu Ile Tyr Thr Leu Leu Thr Cys
425 430 435

Gln Phe Glu Gly Leu Leu Arg Pro Tyr Ile Gln His Ala Met Tyr
440 445 450

Asp Glu Glu Lys Gly Thr Pro Ile Phe Ile Cys Pro Val Ser Trp
455 460 465

Gly

<210> 105
<211> 2103
<212> DNA
<213> Homo Sapien

<400> 105
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tggtgagggc taggaaaaga gtttgttggg aaccctgggt tatcggcctc 100

gtcatcttca tatccctgat tgtcctggca gtgtgcattg gactcactgt 150

tcattatgtg agatataatc aaaagaagac ctacaattac tatagcacat 200

tgtcatttac aactgacaaa ctatatgctg agtttggcag agaggcttct 250

aacaatttta cagaaatgag ccagagactt gaatcaatgg tgaaaaatgc 300

attttataaa tctccattaa gggaagaatt tgtcaagtct caggttatca 350

agttcagtca acagaagcat ggagtgttgg ctcatatgct gttgatttgt 400

agatttcact ctactgagga tcctgaaact gtagataaaa ttgttcaact 450

tgttttacat gaaaagctgc aagatgctgt aggacccccc aaagtagatc 500

ctcactcagt taaaattaaa aaaatcaaca agacagaaac agacagctat 550

ctaaaccatt gctgcggaac acgaagaagt aaaactctag gtcagagtct 600

caggatcgtt ggtgggacag aagtagaaga gggtgaatgg ccctggcagg 650

ctagcctgca gtgggatggg agtcatcgct gtggagcaac cttaattaat 700

gccacatggc ttgtgagtgc tgctcactgt tttacaacat ataagaaccc 750

tgccagatgg actgcttcct ttggagtaac aataaaacct tcgaaaatga 800

aacggggtct ccggagaata attgtccatg aaaaatacaa acacccatca 850

catgactatg atatttctct tgcagagctt tctagccctg ttccctacac 900

aaatgcagta catagagttt gtctccctga tgcatcctat gagtttcaac 950

caggtgatgt gatgtttgtg acaggatttg gagcactgaa aaatgatggt 1000

tacagtcaaa atcatcttcg acaagcacag gtgactctca tagacgctac 1050

aacttgcaat gaacctcaag cttacaatga cgccataact cctagaatgt 1100

tatgtgctgg ctccttagaa ggaaaaacag atgcatgcca gggtgactct 1150

ggaggaccac tggttagttc agatgctaga gatatctggt accttgctgg 1200

aatagtgagc tggggagatg aatgtgcgaa acccaacaag cctggtgttt 1250

atactagagt tacggccttg cgggactgga ttacttcaaa aactggtatc 1300

taagagacaa aagcctcatg gaacagataa catttttttt tgtttttggg 1350
gtgtggaggc catttttaga gatacagaat tggagaagac ttgcaaaaca 1400

gctagatttg actgatctca ataaactgtt tgcttgatgc atgtattttc 1450

ttcccagctc tgttccgcac gtaagcatcc tgcttctgcc agatcaactc 1500

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atacaatatt acattacagc ctgtattcat ttgttctcta gaagttttgt 1600

cagaattttg acttgttgac ataaatttgt aatgcatata tacaatttga 1650

agcactcctt ttcttcagtt cctcagctcc tctcatttca gcaaatatcc 1700

attttcaagg tgcagaacaa ggagtgaaag aaaatataag aagaaaaaaa 1750

tcccctacat tttattggca cagaaaagta ttaggtgttt ttcttagtgg 1800

aatattagaa atgatcatat tcattatgaa aggtcaagca aagacagcag 1850

aataccaatc acttcatcat ttaggaagta tgggaactaa gttaaggaag 1900

tccagaaaga agccaagata tatccttatt ttcatttcca aacaactact 1950

atgataaatg tgaagaagat tctgtttttt tgtgacctat aataattata 2000

caaacttcat gcaatgtact tgttctaagc aaattaaagc aaatatttat 2050

ttaacattgt tactgaggat gtcaacatat aacaataaaa tataaatcac 2100

cca 2103

<210> 106
<211> 423
<212> PRT
<213> Homo Sapien

<400> 106

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Met Met Tyr Arg Pro Asp Val Val Arg Ala Arg Lys Arg Val Cys
  1               5                  10                  15

Trp Glu Pro Trp Val Ile Gly Leu Val Ile Phe Ile Ser Leu Ile
             20                  25                  30

Val Leu Ala Val Cys Ile Gly Leu Thr Val His Tyr Val Arg Tyr
             35                  40                  45

Asn Gln Lys Lys Thr Tyr Asn Tyr Tyr Ser Thr Leu Ser Phe Thr
             50                  55                  60

Thr Asp Lys Leu Tyr Ala Glu Phe Gly Arg Glu Ala Ser Asn Asn
             65                  70                  75

Phe Thr Glu Met Ser Gln Arg Leu Glu Ser Met Val Lys Asn Ala
             80                  85                  90

Phe Tyr Lys Ser Pro Leu Arg Glu Glu Phe Val Lys Ser Gln Val
             95                 100                 105

Ile Lys Phe Ser Gln Gln Lys His Gly Val Leu Ala His Met Leu
            110                 115                 120

Leu Ile Cys Arg Phe His Ser Thr Glu Asp Pro Glu Thr Val Asp
            125                 130                 135

Lys Ile Val Gln Leu Val Leu His Glu Lys Leu Gln Asp Ala Val
            140                 145                 150

Gly Pro Pro Lys Val Asp Pro His Ser Val Lys Ile Lys Lys Ile
            155                 160                 165

Asn Lys Thr Glu Thr Asp Ser Tyr Leu Asn His Cys Cys Gly Thr
            170                 175                 180

Arg Arg Ser Lys Thr Leu Gly Gln Ser Leu Arg Ile Val Gly Gly
            185                 190                 195

Thr Glu Val Glu Glu Gly Glu Trp Pro Trp Gln Ala Ser Leu Gln
```

200 205 210

Trp Asp Gly Ser His Arg Cys Gly Ala Thr Leu Ile Asn Ala Thr
215 220 225

Trp Leu Val Ser Ala Ala His Cys Phe Thr Thr Tyr Lys Asn Pro
230 235 240

Ala Arg Trp Thr Ala Ser Phe Gly Val Thr Ile Lys Pro Ser Lys
245 250 255

Met Lys Arg Gly Leu Arg Arg Ile Ile Val His Glu Lys Tyr Lys
260 265 270

His Pro Ser His Asp Tyr Asp Ile Ser Leu Ala Glu Leu Ser Ser
275 280 285

Pro Val Pro Tyr Thr Asn Ala Val His Arg Val Cys Leu Pro Asp
290 295 300

Ala Ser Tyr Glu Phe Gln Pro Gly Asp Val Met Phe Val Thr Gly
305 310 315

Phe Gly Ala Leu Lys Asn Asp Gly Tyr Ser Gln Asn His Leu Arg
320 325 330

Gln Ala Gln Val Thr Leu Ile Asp Ala Thr Thr Cys Asn Glu Pro
335 340 345

Gln Ala Tyr Asn Asp Ala Ile Thr Pro Arg Met Leu Cys Ala Gly
350 355 360

Ser Leu Glu Gly Lys Thr Asp Ala Cys Gln Gly Asp Ser Gly Gly
365 370 375

Pro Leu Val Ser Ser Asp Ala Arg Asp Ile Trp Tyr Leu Ala Gly
380 385 390

Ile Val Ser Trp Gly Asp Glu Cys Ala Lys Pro Asn Lys Pro Gly
395 400 405

Val Tyr Thr Arg Val Thr Ala Leu Arg Asp Trp Ile Thr Ser Lys
410 415 420

Thr Gly Ile

<210> 107
<211> 2397
<212> DNA
<213> Homo Sapien

<400> 107
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cgaagaagtt ccctgccccg atgagccccc gccgtgcgtc cccgactatc 100

cccaggcggg cgtggggcac cgggcccagc gccgacgatc gctgccgttt 150

tgcccttggg agtaggatgt ggtgaaagga tggggcttct cccttacggg 200

gctcacaatg gccagagaag attccgtgaa gtgtctgcgc tgcctgctct 250

acgccctcaa tctgctcttt tggttaatgt ccatcagtgt gttggcagtt 300

tctgcttgga tgagggacta cctaaataat gttctcactt taactgcaga 350

aacgagggta gaggaagcag tcattttgac ttactttcct gtggttcatc 400

cggtcatgat tgctgtttgc tgtttcctta tcattgtggg gatgttagga 450

tattgtggaa cggtgaaaag aaatctgttg cttcttgcat ggtactttgg 500

aagtttgctt gtcattttct gtgtagaact ggcttgtggc gtttggacat 550

atgaacagga acttatggtt ccagtacaat ggtcagatat ggtcactttg 600

aaagccagga tgacaaatta tggattacct agatatcggt ggcttactca 650

tgcttggaat ttttttcaga gagagtttaa gtgctgtgga gtagtatatt 700

tcactgactg gttggaaatg acagagatgg actggccccc agattcctgc 750

tgtgttagag aattcccagg atgttccaaa caggcccacc aggaagatct 800

cagtgacctt tatcaagagg gttgtgggaa gaaaatgtat tccttttga 850

gaggaaccaa acaactgcag gtgctgaggt ttctgggaat ctccattggg 900

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gtattatgat agaagggagc ctgggacaga ccaaatgatg tccttgaaga 1000

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agcctgtcaa gaatctttga acacacatcc atggcaaaca gctttaatac 1100

acactttgag atggaggagt tataaaaaga aatgtcacag aagaaaacca 1150

caaacttgtt ttattggact tgtgaatttt tgagtacata ctatgtgttt 1200

cagaaatatg tagaaataaa aatgttgcca taaaataaca cctaagcata 1250
tactattcta tgctttaaaa tgaggatgga aaagtttcat gtcataagtc 1300

accacctgga caataattga tgcccttaaa atgctgaaga cagatgtcat 1350

acccactgtg tagcctgtgt atgactttta ctgaacacag ttatgttttg 1400

aggcagcatg gtttgattag catttccgca tccatgcaaa cgagtcacat 1450

atggtgggac tggagccata gtaaaggttg atttacttct accaactagt 1500

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cagaaaactt tcaatattgg tgactaccta aatgtgattt ttgctggtta 1650

ctaaaatatt cttaccactt aaaagagcaa gctaacacat tgtcttaagc 1700

tgatcaggga ttttttgtat ataagtctgt gttaaatctg tataattcag 1750

tcgatttcag ttctgataat gttaagaata accattatga aaaggaaaat 1800

ttgtcctgta tagcatcatt atttttagcc tttcctgtta ataaagcttt 1850

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ctctttttga cactaaacac tttttaaaaa gcttatcttt gccttctcca 2100

aacaagaagc aatagtctcc aagtcaatat aaattctaca gaaaatagtg 2150

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tttagagatt ctttgtttta tttcactgat taatatactg tggcaaatta 2250

cacagattat taaatttttt tacaagagta tagtatattt atttgaaatg 2300

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<210> 108
<211> 305
<212> PRT
<213> Homo Sapien

<400> 108

Met	Ala	Arg	Glu	Asp	Ser	Val	Lys	Cys	Leu	Arg	Cys	Leu	Leu	Tyr
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Ala	Leu	Asn	Leu	Leu	Phe	Trp	Leu	Met	Ser	Ile	Ser	Val	Leu	Ala
				20				25						30
Val	Ser	Ala	Trp	Met	Arg	Asp	Tyr	Leu	Asn	Asn	Val	Leu	Thr	Leu
				35				40						45
Thr	Ala	Glu	Thr	Arg	Val	Glu	Glu	Ala	Val	Ile	Leu	Thr	Tyr	Phe
				50				55						60
Pro	Val	Val	His	Pro	Val	Met	Ile	Ala	Val	Cys	Cys	Phe	Leu	Ile
				65				70						75
Ile	Val	Gly	Met	Leu	Gly	Tyr	Cys	Gly	Thr	Val	Lys	Arg	Asn	Leu
				80				85						90

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Leu Leu Leu Ala Trp Tyr Phe Gly Ser Leu Leu Val Ile Phe Cys
 95                  100                 105

Val Glu Leu Ala Cys Gly Val Trp Thr Tyr Glu Gln Glu Leu Met
110                 115                 120

Val Pro Val Gln Trp Ser Asp Met Val Thr Leu Lys Ala Arg Met
125                 130                 135

Thr Asn Tyr Gly Leu Pro Arg Tyr Arg Trp Leu Thr His Ala Trp
140                 145                 150

Asn Phe Phe Gln Arg Glu Phe Lys Cys Cys Gly Val Val Tyr Phe
155                 160                 165

Thr Asp Trp Leu Glu Met Thr Glu Met Asp Trp Pro Pro Asp Ser
170                 175                 180

Cys Cys Val Arg Glu Phe Pro Gly Cys Ser Lys Gln Ala His Gln
185                 190                 195

Glu Asp Leu Ser Asp Leu Tyr Gln Glu Gly Cys Gly Lys Lys Met
200                 205                 210

Tyr Ser Phe Leu Arg Gly Thr Lys Gln Leu Gln Val Leu Arg Phe
215                 220                 225

Leu Gly Ile Ser Ile Gly Val Thr Gln Ile Leu Ala Met Ile Leu
230                 235                 240

Thr Ile Thr Leu Leu Trp Ala Leu Tyr Tyr Asp Arg Arg Glu Pro
245                 250                 255

Gly Thr Asp Gln Met Met Ser Leu Lys Asn Asp Asn Ser Gln His
260                 265                 270

Leu Ser Cys Pro Ser Val Glu Leu Leu Lys Pro Ser Leu Ser Arg
275                 280                 285

Ile Phe Glu His Thr Ser Met Ala Asn Ser Phe Asn Thr His Phe
290                 295                 300

Glu Met Glu Glu Leu
305
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<210> 109
<211> 2339
<212> DNA
<213> Homo Sapien

<400> 109
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gaggccttaa aaaaaaaagt gcttgaaaga gaaggggaca aaggaacacc 150

agtattaaga ggattttcca gtgtttctgg cagttggtcc agaaggatgc 200

ctccattcct gcttctcacc tgcctcttca tcacaggcac ctccgtgtca 250

cccgtggccc tagatccttg ttctgcttac atcagcctga atgagccctg 300

gaggaacact gaccaccagt tggatgagtc tcaaggtcct cctctatgtg 350

acaaccatgt gaatggggag tggtaccact tcacgggcat ggcgggagat 400

gccatgccta ccttctgcat accagaaaac cactgtggaa cccacgcacc 450

tgtctggctc aatggcagcc acccccctaga aggcgacggc attgtgcaac 500

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gtggaagtca aggcttgccc tggaggctac tatgtgtatc gtctgaccaa 600

gcccagcgtc tgcttccacg tctactgtgg tcatttttat gacatctgcg 650

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atgtgagcaa aacaacggtg gctgcagtga gatctgtgtg aacctcaaaa 800

actcctaccg ctgtgagtgt ggggttggcc gtgtgctaag aagtgatggc 850

aagacttgtg aagacgttga aggatgccac aataacaatg gtggctgcag 900

ccactcttgc cttggatctg agaaaggcta ccagtgtgaa tgtccccggg 950

gcctggtgct gtctgaggat aaccacactt gccaagtccc tgtgttgtgc 1000

aaatcaaatg ccattgaagt gaacatcccc agggagctgg ttggtggcct 1050

ggagctcttc ctgaccaaca cctcctgccg aggagtgtcc aacggcaccc 1100

atgtcaacat cctcttctct ctcaagacat gtggtacagt ggtcgatgtg 1150

gtgaatgaca agattgtggc cagcaacctc gtgacaggtc tacccaagca 1200

gaccccgggg agcagcgggg acttcatcat ccgaaccagc aagctgctga 1250

tcccggtgac ctgcgagttt ccacgcctgt acaccatttc tgaaggatac 1300

gttcccaacc ttcgaaactc cccactggaa atcatgagcc gaaatcatgg 1350

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cagactccca gcaccaactc actctgattc tggtccattc agtgggcaca 2000

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aacagttact gaaattatga cttaaatacc caatgactcc ttaaatatgt 2250

aaattatagt tataccttga aatttcaatt caaatgcaga ctaattatag 2300

ggaatttgga agtgtatcaa taaaacagta tataatttt 2339

<210> 110
<211> 545
<212> PRT
<213> Homo Sapien

<400> 110

Met	Pro	Pro	Phe	Leu	Leu	Leu	Thr	Cys	Leu	Phe	Ile	Thr	Gly	Thr	
1				5				10						15	
Ser	Val	Ser	Pro	Val	Ala	Leu	Asp	Pro	Cys	Ser	Ala	Tyr	Ile	Ser	
				20				25						30	
Leu	Asn	Glu	Pro	Trp	Arg	Asn	Thr	Asp	His	Gln	Leu	Asp	Glu	Ser	
				35				40						45	
Gln	Gly	Pro	Pro	Leu	Cys	Asp	Asn	His	Val	Asn	Gly	Glu	Trp	Tyr	
				50				55						60	
His	Phe	Thr	Gly	Met	Ala	Gly	Asp	Ala	Met	Pro	Thr	Phe	Cys	Ile	
				65				70						75	
Pro	Glu	Asn	His	Cys	Gly	Thr	His	Ala	Pro	Val	Trp	Leu	Asn	Gly	
				80				85						90	
Ser	His	Pro	Leu	Glu	Gly	Asp	Gly	Ile	Val	Gln	Arg	Gln	Ala	Cys	
				95				100						105	

```
Ala Ser Phe Asn Gly Asn Cys Cys Leu Trp Asn Thr Thr Val Glu
                110                 115                 120

Val Lys Ala Cys Pro Gly Gly Tyr Tyr Val Tyr Arg Leu Thr Lys
                125                 130                 135

Pro Ser Val Cys Phe His Val Tyr Cys Gly His Phe Tyr Asp Ile
                140                 145                 150

Cys Asp Glu Asp Cys His Gly Ser Cys Ser Asp Thr Ser Glu Cys
                155                 160                 165

Thr Cys Ala Pro Gly Thr Val Leu Gly Pro Asp Arg Gln Thr Cys
                170                 175                 180

Phe Asp Glu Asn Glu Cys Glu Gln Asn Asn Gly Gly Cys Ser Glu
                185                 190                 195

Ile Cys Val Asn Leu Lys Asn Ser Tyr Arg Cys Glu Cys Gly Val
                200                 205                 210

Gly Arg Val Leu Arg Ser Asp Gly Lys Thr Cys Glu Asp Val Glu
                215                 220                 225

Gly Cys His Asn Asn Asn Gly Gly Cys Ser His Ser Cys Leu Gly
                230                 235                 240

Ser Glu Lys Gly Tyr Gln Cys Glu Cys Pro Arg Gly Leu Val Leu
                245                 250                 255

Ser Glu Asp Asn His Thr Cys Gln Val Pro Val Leu Cys Lys Ser
                260                 265                 270

Asn Ala Ile Glu Val Asn Ile Pro Arg Glu Leu Val Gly Gly Leu
                275                 280                 285

Glu Leu Phe Leu Thr Asn Thr Ser Cys Arg Gly Val Ser Asn Gly
                290                 295                 300

Thr His Val Asn Ile Leu Phe Ser Leu Lys Thr Cys Gly Thr Val
                305                 310                 315

Val Asp Val Val Asn Asp Lys Ile Val Ala Ser Asn Leu Val Thr
                320                 325                 330

Gly Leu Pro Lys Gln Thr Pro Gly Ser Ser Gly Asp Phe Ile Ile
                335                 340                 345

Arg Thr Ser Lys Leu Leu Ile Pro Val Thr Cys Glu Phe Pro Arg
                350                 355                 360

Leu Tyr Thr Ile Ser Glu Gly Tyr Val Pro Asn Leu Arg Asn Ser
                365                 370                 375

Pro Leu Glu Ile Met Ser Arg Asn His Gly Ile Phe Pro Phe Thr
                380                 385                 390
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Leu Glu Ile Phe Lys Asp Asn Glu Phe Glu Glu Pro Tyr Arg Glu
395 400 405

Ala Leu Pro Thr Leu Lys Leu Arg Asp Ser Leu Tyr Phe Gly Ile
410 415 420

Glu Pro Val Val His Val Ser Gly Leu Glu Ser Leu Val Glu Ser
425 430 435

Cys Phe Ala Thr Pro Thr Ser Lys Ile Asp Glu Val Leu Lys Tyr
440 445 450

Tyr Leu Ile Arg Asp Gly Cys Val Ser Asp Asp Ser Val Lys Gln
455 460 465

Tyr Thr Ser Arg Asp His Leu Ala Lys His Phe Gln Val Pro Val
470 475 480

Phe Lys Phe Val Gly Lys Asp His Lys Glu Val Phe Leu His Cys
485 490 495

Arg Val Leu Val Cys Gly Val Leu Asp Glu Arg Ser Arg Cys Ala
500 505 510

Gln Gly Cys His Arg Arg Met Arg Arg Gly Ala Gly Gly Glu Asp
515 520 525

Ser Ala Gly Leu Gln Gly Gln Thr Leu Thr Gly Gly Pro Ile Arg
530 535 540

Ile Asp Trp Glu Asp
545

<210> 111
<211> 2063
<212> DNA
<213> Homo Sapien

<400> 111
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attgtggttg tcctcatcaa ggtgattctg gataaatact acttcctctg 400

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tggactgtcc cttgggggag gacgaggagc actgtgtcaa gagcttcccc 500

gaagggcctg cagtggcagt ccgcctctcc aaggaccgat ccacactgca 550

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gctccctggt ctccctgcac tgtcttgcct gtgggaagag cctgaagacc 800

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<210> 112
<211> 432
<212> PRT
<213> Homo Sapien

<400> 112

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Met Leu Gln Asp Pro Asp Ser Asp Gln Pro Leu Asn Ser Leu Asp
  1               5                  10                  15

Val Lys Pro Leu Arg Lys Pro Arg Ile Pro Met Glu Thr Phe Arg
             20                  25                  30

Lys Val Gly Ile Pro Ile Ile Ile Ala Leu Leu Ser Leu Ala Ser
             35                  40                  45

Ile Ile Ile Val Val Val Leu Ile Lys Val Ile Leu Asp Lys Tyr
             50                  55                  60

Tyr Phe Leu Cys Gly Gln Pro Leu His Phe Ile Pro Arg Lys Gln
             65                  70                  75

Leu Cys Asp Gly Glu Leu Asp Cys Pro Leu Gly Glu Asp Glu Glu
             80                  85                  90

His Cys Val Lys Ser Phe Pro Glu Gly Pro Ala Val Ala Val Arg
             95                 100                 105

Leu Ser Lys Asp Arg Ser Thr Leu Gln Val Leu Asp Ser Ala Thr
            110                 115                 120

Gly Asn Trp Phe Ser Ala Cys Phe Asp Asn Phe Thr Glu Ala Leu
            125                 130                 135

Ala Glu Thr Ala Cys Arg Gln Met Gly Tyr Ser Arg Ala Val Glu
            140                 145                 150

Ile Gly Pro Asp Gln Asp Leu Asp Val Val Glu Ile Thr Glu Asn
            155                 160                 165

Ser Gln Glu Leu Arg Met Arg Asn Ser Ser Gly Pro Cys Leu Ser
            170                 175                 180

Gly Ser Leu Val Ser Leu His Cys Leu Ala Cys Gly Lys Ser Leu
            185                 190                 195

Lys Thr Pro Arg Val Val Gly Gly Glu Glu Ala Ser Val Asp Ser
            200                 205                 210
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Trp Pro Trp Gln Val Ser Ile Gln Tyr Asp Lys Gln His Val Cys
                215                 220                 225

Gly Gly Ser Ile Leu Asp Pro His Trp Val Leu Thr Ala Ala His
                230                 235                 240

Cys Phe Arg Lys His Thr Asp Val Phe Asn Trp Lys Val Arg Ala
                245                 250                 255

Gly Ser Asp Lys Leu Gly Ser Phe Pro Ser Leu Ala Val Ala Lys
                260                 265                 270

Ile Ile Ile Ile Glu Phe Asn Pro Met Tyr Pro Lys Asp Asn Asp
                275                 280                 285

Ile Ala Leu Met Lys Leu Gln Phe Pro Leu Thr Phe Ser Gly Thr
                290                 295                 300

Val Arg Pro Ile Cys Leu Pro Phe Phe Asp Glu Glu Leu Thr Pro
                305                 310                 315

Ala Thr Pro Leu Trp Ile Ile Gly Trp Gly Phe Thr Lys Gln Asn
                320                 325                 330

Gly Gly Lys Met Ser Asp Ile Leu Leu Gln Ala Ser Val Gln Val
                335                 340                 345

Ile Asp Ser Thr Arg Cys Asn Ala Asp Asp Ala Tyr Gln Gly Glu
                350                 355                 360

Val Thr Glu Lys Met Met Cys Ala Gly Ile Pro Glu Gly Gly Val
                365                 370                 375

Asp Thr Cys Gln Gly Asp Ser Gly Gly Pro Leu Met Tyr Gln Ser
                380                 385                 390

Asp Gln Trp His Val Val Gly Ile Val Ser Trp Gly Tyr Gly Cys
                395                 400                 405

Gly Gly Pro Ser Thr Pro Gly Val Tyr Thr Lys Val Ser Ala Tyr
                410                 415                 420

Leu Asn Trp Ile Tyr Asn Val Trp Lys Ala Glu Leu
                425                 430
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<210> 113
<211> 1768
<212> DNA
<213> Homo Sapien

<400> 113
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gaggccgagg cgggtagatc acctgaggtc aggagttcaa gaccagcctg 1550

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aattatggtt atttgtaa 1768

<210> 114
<211> 109
<212> PRT
<213> Homo Sapien

<400> 114

Met	Leu	Trp	Trp	Leu	Val	Leu	Leu	Leu	Leu	Pro	Thr	Leu	Lys	Ser	
1				5				10						15	
Val	Phe	Cys	Ser	Leu	Val	Thr	Ser	Leu	Tyr	Leu	Pro	Asn	Thr	Glu	
				20				25						30	
Asp	Leu	Ser	Leu	Trp	Leu	Trp	Pro	Lys	Pro	Asp	Leu	His	Ser	Gly	
				35				40						45	
Thr	Arg	Thr	Glu	Val	Ser	Thr	His	Thr	Val	Pro	Ser	Lys	Pro	Gly	
				50				55						60	
Thr	Ala	Ser	Pro	Cys	Trp	Pro	Leu	Ala	Gly	Ala	Val	Pro	Ser	Pro	
				65				70						75	
Thr	Val	Ser	Arg	Leu	Glu	Ala	Leu	Thr	Arg	Ala	Val	Gln	Val	Ala	
				80				85						90	
Glu	Pro	Leu	Gly	Ser	Cys	Gly	Phe	Gln	Gly	Gly	Pro	Cys	Pro	Gly	
				95				100						105	

Arg Arg Arg Asp

<210> 115
<211> 1197
<212> DNA
<213> Homo Sapien

<400> 115
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ctaaatgcag aagcttttaa atccaagaaa atatgtaaat cacttaagat 150

ttgtggactg gtgtttggta tcctggccct aactctaatt gtcctgtttt 200

gggggagcaa gcacttctgg ccggaggtac ccaaaaaagc ctatgacatg 250

gagcacactt tctacagcaa tggagagaag aagaagattt acatggaaat 300

tgatcctgtg accagaactg aaatattcag aagcggaaat ggcactgatg 350

aaacattgga agtgcacgac tttaaaaacg gatacactgg catctacttc 400

gtgggtcttc aaaaatgttt tatcaaaact cagattaaag tgattcctga 450

attttctgaa ccagaagagg aaatagatga gaatgaagaa attaccacaa 500

ctttctttga acagtcagtg atttgggtcc cagcagaaaa gcctattgaa 550

aaccgagatt ttcttaaaaa ttccaaaatt ctggagattt gtgataacgt 600

gaccatgtat tggatcaatc ccactctaat atcagtttct gagttacaag 650

actttgagga ggagggagaa gatcttcact ttcctgccaa cgaaaaaaaa 700

gggattgaac aaaatgaaca gtgggtggtc cctcaagtga aagtagagaa 750

gacccgtcac gccagacaag caagtgagga agaacttcca ataaatgact 800

atactgaaaa tggaatagaa tttgatccca tgctggatga gagaggttat 850

tgttgtattt actgccgtcg aggcaaccgc tattgccgcc gcgtctgtga 900

acctttacta ggctactacc catatccata ctgctaccaa ggaggacgag 950

tcatctgtcg tgtcatcatg ccttgtaact ggtgggtggc ccgcatgctg 1000

gggagggtct aataggaggt ttgagctcaa atgcttaaac tgctggcaac 1050

atataataaa tgcatgctat tcaatgaatt tctgcctatg aggcatctgg 1100

cccctggtag ccagctctcc agaattactt gtaggtaatt cctctcttca 1150

tgttctaata aacttctaca ttatcaccaa aaaaaaaaaa aaaaaaa 1197

<210> 116
<211> 317
<212> PRT
<213> Homo Sapien

<400> 116

Met	Ala	Lys	Asn	Pro	Pro	Glu	Asn	Cys	Glu	Asp	Cys	His	Ile	Leu	
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Asn	Ala	Glu	Ala	Phe	Lys	Ser	Lys	Lys	Ile	Cys	Lys	Ser	Leu	Lys	
				20				25						30	
Ile	Cys	Gly	Leu	Val	Phe	Gly	Ile	Leu	Ala	Leu	Thr	Leu	Ile	Val	
				35				40						45	
Leu	Phe	Trp	Gly	Ser	Lys	His	Phe	Trp	Pro	Glu	Val	Pro	Lys	Lys	
				50				55						60	
Ala	Tyr	Asp	Met	Glu	His	Thr	Phe	Tyr	Ser	Asn	Gly	Glu	Lys	Lys	
				65				70						75	
Lys	Ile	Tyr	Met	Glu	Ile	Asp	Pro	Val	Thr	Arg	Thr	Glu	Ile	Phe	

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                80                  85                  90

Arg Ser Gly Asn Gly Thr Asp Glu Thr Leu Glu Val His Asp Phe
                95                 100                 105

Lys Asn Gly Tyr Thr Gly Ile Tyr Phe Val Gly Leu Gln Lys Cys
               110                 115                 120

Phe Ile Lys Thr Gln Ile Lys Val Ile Pro Glu Phe Ser Glu Pro
               125                 130                 135

Glu Glu Glu Ile Asp Glu Asn Glu Glu Ile Thr Thr Thr Phe Phe
               140                 145                 150

Glu Gln Ser Val Ile Trp Val Pro Ala Glu Lys Pro Ile Glu Asn
               155                 160                 165

Arg Asp Phe Leu Lys Asn Ser Lys Ile Leu Glu Ile Cys Asp Asn
               170                 175                 180

Val Thr Met Tyr Trp Ile Asn Pro Thr Leu Ile Ser Val Ser Glu
               185                 190                 195

Leu Gln Asp Phe Glu Glu Glu Gly Glu Asp Leu His Phe Pro Ala
               200                 205                 210

Asn Glu Lys Lys Gly Ile Glu Gln Asn Glu Gln Trp Val Val Pro
               215                 220                 225

Gln Val Lys Val Glu Lys Thr Arg His Ala Arg Gln Ala Ser Glu
               230                 235                 240

Glu Glu Leu Pro Ile Asn Asp Tyr Thr Glu Asn Gly Ile Glu Phe
               245                 250                 255

Asp Pro Met Leu Asp Glu Arg Gly Tyr Cys Cys Ile Tyr Cys Arg
               260                 265                 270

Arg Gly Asn Arg Tyr Cys Arg Arg Val Cys Glu Pro Leu Leu Gly
               275                 280                 285

Tyr Tyr Pro Tyr Pro Tyr Cys Tyr Gln Gly Gly Arg Val Ile Cys
               290                 295                 300

Arg Val Ile Met Pro Cys Asn Trp Trp Val Ala Arg Met Leu Gly
               305                 310                 315

Arg Val
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<210> 117
<211> 2121
<212> DNA
<213> Homo Sapien

<400> 117
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cacatgccaa gtggtggcgt tcctcctgtc catcctgggg ctggccggct 150

gcatcgcggc caccgggatg gacatgtgga gcacccagga cctgtacgac 200

aaccccgtca cctccgtgtt ccagtacgaa gggctctgga ggagctgcgt 250

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tccttccaag cacgactatg tgtaatgctc taagacctct cagcacgggc 900

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atttcttctt gcttttgact cacagctgga agttagaaaa gcctcgattt 1000

catctttgga gaggccaaat ggtcttagcc tcagtctctg tctctaaata 1050

ttccaccata aaacagctga gttatttatg aattagaggc tatagctcac 1100

attttcaatc ctctatttct ttttttaaat ataactttct actctgatga 1150

gagaatgtgg ttttaatctc tctctcacat tttgatgatt tagacagact 1200

ccccctcttc ctcctagtca ataaacccat tgatgatcta tttcccagct 1250

tatccccaag aaaacttttg aaaggaaaga gtagacccaa agatgttatt 1300

ttctgctgtt tgaattttgt ctccccaccc ccaacttggc tagtaataaa 1350

cacttactga agaagaagca ataagagaaa gatatttgta atctctccag 1400

cccatgatct cggttttctt acactgtgat cttaaaagtt accaaaccaa 1450

agtcattttc agtttgaggc aaccaaacct ttctactgct gttgacatct 1500

tcttattaca gcaacaccat tctaggagtt tcctgagctc tccactggag 1550

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agcactttgg gaggctgagg aggaaggatc acttgagccc agaagttcga 1850

gactagcctg ggcaacatgg agaagccctg tctctacaaa atacagagag 1900

aaaaaatcag ccagtcatgg tggcatacac ctgtagtccc agcattccgg 1950

gaggctgagg tgggaggatc acttgagccc agggaggttg gggctgcagt 2000

gagccatgat cacaccactg cactccagcc aggtgacata gcgagatcct 2050

gtctaaaaaa ataaaaaata aataatggaa cacagcaagt cctaggaagt 2100

aggttaaaac taattcttta a 2121

<210> 118
<211> 261
<212> PRT
<213> Homo Sapien

<400> 118

Met	Ser	Thr	Thr	Thr	Cys	Gln	Val	Val	Ala	Phe	Leu	Leu	Ser	Ile
1				5				10						15	
Leu	Gly	Leu	Ala	Gly	Cys	Ile	Ala	Ala	Thr	Gly	Met	Asp	Met	Trp
				20				25						30	
Ser	Thr	Gln	Asp	Leu	Tyr	Asp	Asn	Pro	Val	Thr	Ser	Val	Phe	Gln
				35				40						45	
Tyr	Glu	Gly	Leu	Trp	Arg	Ser	Cys	Val	Arg	Gln	Ser	Ser	Gly	Phe
				50				55						60	
Thr	Glu	Cys	Arg	Pro	Tyr	Phe	Thr	Ile	Leu	Gly	Leu	Pro	Ala	Met
				65				70						75	
Leu	Gln	Ala	Val	Arg	Ala	Leu	Met	Ile	Val	Gly	Ile	Val	Leu	Gly
				80				85						90	
Ala	Ile	Gly	Leu	Leu	Val	Ser	Ile	Phe	Ala	Leu	Lys	Cys	Ile	Arg
				95				100						105	
Ile	Gly	Ser	Met	Glu	Asp	Ser	Ala	Lys	Ala	Asn	Met	Thr	Leu	Thr
				110				115						120	

Ser Gly Ile Met Phe Ile Val Ser Gly Leu Cys Ala Ile Ala Gly
125 130 135

Val Ser Val Phe Ala Asn Met Leu Val Thr Asn Phe Trp Met Ser
140 145 150

Thr Ala Asn Met Tyr Thr Gly Met Gly Gly Met Val Gln Thr Val
155 160 165

Gln Thr Arg Tyr Thr Phe Gly Ala Ala Leu Phe Val Gly Trp Val
170 175 180

Ala Gly Gly Leu Thr Leu Ile Gly Gly Val Met Met Cys Ile Ala
185 190 195

Cys Arg Gly Leu Ala Pro Glu Glu Thr Asn Tyr Lys Ala Val Ser
200 205 210

Tyr His Ala Ser Gly His Ser Val Ala Tyr Lys Pro Gly Gly Phe
215 220 225

Lys Ala Ser Thr Gly Phe Gly Ser Asn Thr Lys Asn Lys Lys Ile
230 235 240

Tyr Asp Gly Gly Ala Arg Thr Glu Asp Glu Val Gln Ser Tyr Pro
245 250 255

Ser Lys His Asp Tyr Val
260

<210> 119
<211> 2010
<212> DNA
<213> Homo Sapien

<400> 119
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gtagcagttc cggagtccag ctggctaaaa ctcatcccag aggataatgg 100

caacccatgc cttagaaatc gctgggctgt ttcttggtgg tgttggaatg 150

gtgggcacag tggctgtcac tgtcatgcct cagtggagag tgtcggcctt 200

cattgaaaac aacatcgtgg tttttgaaaa cttctgggaa ggactgtgga 250

tgaattgcgt gaggcaggct aacatcagga tgcagtgcaa aatctatgat 300

tccctgctgg ctctttctcc ggacctacag gcagccagag gactgatgtg 350

tgctgcttcc gtgatgtcct tcttggcttt catgatggcc atccttggca 400

tgaaatgcac caggtgcacg ggggacaatg agaaggtgaa ggctcacatt 450

ctgctgacgg ctggaatcat cttcatcatc acgggcatgg tggtgctcat 500

ccctgtgagc tgggttgcca atgccatcat cagagatttc tataactcaa 550

tagtgaatgt tgcccaaaaa cgtgagcttg gagaagctct ctacttagga 600

tggaccacgg cactggtgct gattgttgga ggagctctgt tctgctgcgt 650

tttttgttgc aacgaaaaga gcagtagcta cagatactcg ataccttccc 700

atcgcacaac ccaaaaaagt tatcacaccg gaaagaagtc accgagcgtc 750

tactccagaa gtcagtatgt gtagttgtgt atgtttttt aactttacta 800

taaagccatg caaatgacaa aaatctatat tactttctca aaatggaccc 850

caaagaaact ttgatttact gttcttaact gcctaatctt aattacagga 900

actgtgcatc agctatttat gattctataa gctatttcag cagaatgaga 950

tattaaaccc aatgctttga ttgttctaga aagtatagta atttgttttc 1000

taaggtggtt caagcatcta ctctttttat catttacttc aaaatgacat 1050

tgctaaagac tgcattattt tactactgta atttctccac gacatagcat 1100

tatgtacata gatgagtgta acatttatat ctcacataga gacatgctta 1150

tatggtttta tttaaaatga aatgccagtc cattacactg aataaataga 1200

actcaactat tgcttttcag ggaaatcatg gatagggttg aagaaggtta 1250

ctattaattg tttaaaaaca gcttagggat taatgtcctc catttataat 1300

gaagattaaa atgaaggctt taatcagcat tgtaaaggaa attgaatggc 1350

tttctgatat gctgtttttt agcctaggag ttagaaatcc taacttcttt 1400

atcctcttct cccagaggct ttttttttct tgtgtattaa attaacattt 1450

ttaaaacgca gatattttgt caaggggctt tgcattcaaa ctgcttttcc 1500

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gttttaggaa agtgaaaata tttttgtttt tgtatttgaa gaagaatgat 1600

gcattttgac aagaaatcat atatgtatgg atatatttta ataagtattt 1650

gagtacagac tttgaggttt catcaatata aataaaagag cagaaaaata 1700

tgtcttggtt ttcatttgct taccaaaaaa acaacaacaa aaaaagttgt 1750

cctttgagaa cttcacctgc tcctatgtgg gtacctgagt caaaattgtc 1800

atttttgttc tgtgaaaaat aaatttcctt cttgtaccat ttctgtttag 1850

ttttactaaa atctgtaaat actgtatttt tctgtttatt ccaaatttga 1900

tgaaactgac aatccaattt gaaagtttgt gtcgacgtct gtctagctta 1950

aatgaatgtg ttctatttgc tttatacatt tatattaata aattgtacat 2000

ttttctaatt 2010

<210> 120
<211> 225
<212> PRT
<213> Homo Sapien

<400> 120

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Met Ala Thr His Ala Leu Glu Ile Ala Gly Leu Phe Leu Gly Gly
  1               5                  10                  15

Val Gly Met Val Gly Thr Val Ala Val Thr Val Met Pro Gln Trp
                20                  25                  30

Arg Val Ser Ala Phe Ile Glu Asn Asn Ile Val Val Phe Glu Asn
                35              . .  40                  45

Phe Trp Glu Gly Leu Trp Met Asn Cys Val Arg Gln Ala Asn Ile
                50                  55                  60

Arg Met Gln Cys Lys Ile Tyr Asp Ser Leu Leu Ala Leu Ser Pro
                65                  70                  75

Asp Leu Gln Ala Ala Arg Gly Leu Met Cys Ala Ala Ser Val Met
                80                  85                  90

Ser Phe Leu Ala Phe Met Met Ala Ile Leu Gly Met Lys Cys Thr
                95                 100                 105

Arg Cys Thr Gly Asp Asn Glu Lys Val Lys Ala His Ile Leu Leu
               110                 115                 120

Thr Ala Gly Ile Ile Phe Ile Ile Thr Gly Met Val Val Leu Ile
               125                 130                 135

Pro Val Ser Trp Val Ala Asn Ala Ile Ile Arg Asp Phe Tyr Asn
               140                 145                 150

Ser Ile Val Asn Val Ala Gln Lys Arg Glu Leu Gly Glu Ala Leu
               155                 160                 165

Tyr Leu Gly Trp Thr Thr Ala Leu Val Leu Ile Val Gly Gly Ala
               170                 175                 180

Leu Phe Cys Cys Val Phe Cys Cys Asn Glu Lys Ser Ser Ser Tyr
               185                 190                 195

Arg Tyr Ser Ile Pro Ser His Arg Thr Thr Gln Lys Ser Tyr His
               200                 205                 210

Thr Gly Lys Lys Ser Pro Ser Val Tyr Ser Arg Ser Gln Tyr Val
               215                 220                 225
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<210> 121

<211> 1257
<212> DNA
<213> Homo Sapien

<400> 121
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cggagcgcgg cggagccaga cgctgaccac gttcctctcc tcggtctcct 100

ccgcctccag ctccgcgctg cccggcagcc gggagccatg cgaccccagg 150

gccccgccgc ctccccgcag cggctccgcg gcctcctgct gctcctgctg 200

ctgcagctgc ccgcgccgtc gagcgcctct gagatcccca aggggaagca 250

aaaggcgcag ctccggcaga gggaggtggt ggacctgtat aatggaatgt 300

gcttacaagg gccagcagga gtgcctggtc gagacgggag ccctggggcc 350

aatgttattc cgggtacacc tgggatccca ggtcgggatg gattcaaagg 400

agaaaagggg gaatgtctga gggaaagctt tgaggagtcc tggacaccca 450

actacaagca gtgttcatgg agttcattga attatggcat agatcttggg 500

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agttttgttc agtggctcac ttcggctaaa atgcagaaat gcatgctgtc 600

agcgttggta tttcacattc aatggagctg aatgttcagg acctcttccc 650

attgaagcta taatttattt ggaccaagga agccctgaaa tgaattcaac 700

aattaatatt catcgcactt cttctgtgga aggactttgt gaaggaattg 750

gtgctggatt agtggatgtt gctatctggg ttggcacttg ttcagattac 800

ccaaaaggag atgcttctac tggatggaat tcagtttctc gcatcattat 850

tgaagaacta ccaaaataaa tgctttaatt ttcatttgct acctcttttt 900

ttattatgcc ttggaatggt tcacttaaat gacattttaa ataagtttat 950
gtatacatct gaatgaaaag caaagctaaa tatgtttaca gaccaaagtg 1000

tgatttcaca ctgtttttaa atctagcatt attcattttg cttcaatcaa 1050

aagtggtttc aatatttttt ttagttggtt agaatacttt cttcatagtc 1100

acattctctc aacctataat ttggaatatt gttgtggtct tttgtttttt 1150

ctcttagtat agcattttta aaaaaatata aaagctacca atctttgtac 1200

aatttgtaaa tgttaagaat ttttttttata tctgttaaat aaaaattatt 1250

tccaaca 1257

<210> 122

<211> 243
<212> PRT
<213> Homo Sapien

<400> 122
Met Arg Pro Gln Gly Pro Ala Ala Ser Pro Gln Arg Leu Arg Gly
1 5 10 15

Leu Leu Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser Ala
20 25 30

Ser Glu Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg
35 40 45

Glu Val Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala
50 55 60

Gly Val Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Val Ile Pro
65 70 75

Gly Thr Pro Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys
80 85 90

Gly Glu Cys Leu Arg Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn
95 100 105

Tyr Lys Gln Cys Ser Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu
110 115 120

Gly Lys Ile Ala Glu Cys Thr Phe Thr Lys Met Arg Ser Asn Ser
125 130 135

Ala Leu Arg Val Leu Phe Ser Gly Ser Leu Arg Leu Lys Cys Arg
140 145 150

Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr Phe Asn Gly Ala Glu
155 160 165

Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile Tyr Leu Asp Gln
170 175 180

Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile His Arg Thr Ser
185 190 195

Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu Val Asp
200 205 210

Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly Asp
215 220 225

Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu Glu
230 235 240

Leu Pro Lys

<210> 123

<211> 2379
<212> DNA
<213> Homo Sapien

<400> 123
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agctctgtgg ctgaactggg tgctcatcac gggaactgct gggctatgga 100

atacagatgt ggcagctcag gtagccccaa attgcctgga agaatacatc 150

atgtttttcg ataagaagaa attgtaggat ccagtttttt ttttaaccgc 200

cccctcccca ccccccaaaa aaactgtaaa gatgcaaaaa cgtaatatcc 250

atgaagatcc tattacctag gaagattttg atgttttgct gcgaatgcgg 300

tgttgggatt tatttgttct tggagtgttc tgcgtggctg gcaaagaata 350

atgttccaaa atcggtccat ctcccaaggg gtccaatttt tcttcctggg 400

tgtcagcgag ccctgactca ctacagtgca gctgacaggg gctgtcatgc 450

aactggcccc taagccaaag caaaagacct aaggacgacc tttgaacaat 500

acaaaggatg ggtttcaatg taattaggct actgagcgga tcagctgtag 550

cactggttat agcccccact gtcttactga caatgctttc ttctgccgaa 600

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atctcagaaa ttacaggaga taccctcaag tatatctgct ggttgcttag 700

gtttgtccct tcgctataac agccttcaaa aacttaagta taatcaattt 750

aaagggctca accagctcac ctggctatac cttgaccata accatatcag 800

caatattgac gaaaatgctt ttaatggaat acgcagactc aaagagctga 850

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ggtctaactc cctgagaacc atccctgtgc gaatattcca agactgccgc 1050

aacctggaac ttttggacct gggatataac cggatccgaa gtttagccag 1100
gaatgtcttt gctggcatga tcagactcaa agaacttcac ctggagcaca 1150

atcaattttc caagctcaac ctggcccttt ttccaaggtt ggtcagcctt 1200

cagaaccttt acttgcagtg gaataaaatc agtgtcatag gacagaccat 1250

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cgcctcaacc tggattccaa caagctcaca tttattggtc aagagatttt 1400

ggattcttgg atatccctca atgacatcag tcttgctggg aatatatggg 1450

aatgcagcag aaatatttgc tcccttgtaa actggctgaa aagttttaaa 1500

ggtctaaggg agaatacaat tatctgtgcc agtcccaaag agctgcaagg 1550

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ctacagagag gtttgatctg gccagggctc tcccaaagcc gacgtttaag 1650

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gggaccctgc acctataaca aatcgggctc cagggagtgt gaggtatgaa 2050

ccattgtgat aaaaagagct cttaaaagct gggaaataag tggtgcttta 2100

ttgaactctg gtgactatca agggaacgcg atgccccccc tccccttccc 2150

tctccctctc actttggtgg caagatcctt ccttgtccgt tttagtgcat 2200

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aaataccaca atcaatgtga agcttgaact ccggtttaat ataataccta 2300

ttgtataaga ccctttactg attccattaa tgtcgcattt gttttaagat 2350

aaaacttctt tcataggtaa aaaaaaaaa 2379

<210> 124
<211> 513
<212> PRT
<213> Homo Sapien

<400> 124
Met Gly Phe Asn Val Ile Arg Leu Leu Ser Gly Ser Ala Val Ala
1 5 10 15
Leu Val Ile Ala Pro Thr Val Leu Leu Thr Met Leu Ser Ser Ala
20 25 30

Glu Arg Gly Cys Pro Lys Gly Cys Arg Cys Glu Gly Lys Met Val
35 40 45

```
Tyr Cys Glu Ser Gln Lys Leu Gln Glu Ile Pro Ser Ser Ile Ser
                 50                  55                  60

Ala Gly Cys Leu Gly Leu Ser Leu Arg Tyr Asn Ser Leu Gln Lys
                 65                  70                  75

Leu Lys Tyr Asn Gln Phe Lys Gly Leu Asn Gln Leu Thr Trp Leu
                 80                  85                  90

Tyr Leu Asp His Asn His Ile Ser Asn Ile Asp Glu Asn Ala Phe
                 95                 100                 105

Asn Gly Ile Arg Arg Leu Lys Glu Leu Ile Leu Ser Ser Asn Arg
                110                 115                 120

Ile Ser Tyr Phe Leu Asn Asn Thr Phe Arg Pro Val Thr Asn Leu
                125                 130                 135

Arg Asn Leu Asp Leu Ser Tyr Asn Gln Leu His Ser Leu Gly Ser
                140                 145                 150

Glu Gln Phe Arg Gly Leu Arg Lys Leu Leu Ser Leu His Leu Arg
                155                 160                 165

Ser Asn Ser Leu Arg Thr Ile Pro Val Arg Ile Phe Gln Asp Cys
                170                 175                 180

Arg Asn Leu Glu Leu Leu Asp Leu Gly Tyr Asn Arg Ile Arg Ser
                185                 190                 195

Leu Ala Arg Asn Val Phe Ala Gly Met Ile Arg Leu Lys Glu Leu
                200                 205                 210

His Leu Glu His Asn Gln Phe Ser Lys Leu Asn Leu Ala Leu Phe
                215                 220                 225

Pro Arg Leu Val Ser Leu Gln Asn Leu Tyr Leu Gln Trp Asn Lys
                230                 235                 240

Ile Ser Val Ile Gly Gln Thr Met Ser Trp Thr Trp Ser Ser Leu
                245                 250                 255

Gln Arg Leu Asp Leu Ser Gly Asn Glu Ile Glu Ala Phe Ser Gly
                260                 265                 270

Pro Ser Val Phe Gln Cys Val Pro Asn Leu Gln Arg Leu Asn Leu
                275                 280                 285

Asp Ser Asn Lys Leu Thr Phe Ile Gly Gln Glu Ile Leu Asp Ser
                290                 295                 300

Trp Ile Ser Leu Asn Asp Ile Ser Leu Ala Gly Asn Ile Trp Glu
                305                 310                 315

Cys Ser Arg Asn Ile Cys Ser Leu Val Asn Trp Leu Lys Ser Phe
                320                 325                 330
```

Lys Gly Leu Arg Glu Asn Thr Ile Ile Cys Ala Ser Pro Lys Glu
335 340 345

Leu Gln Gly Val Asn Val Ile Asp Ala Val Lys Asn Tyr Ser Ile
350 355 360

Cys Gly Lys Ser Thr Thr Glu Arg Phe Asp Leu Ala Arg Ala Leu
365 370 375

Pro Lys Pro Thr Phe Lys Pro Lys Leu Pro Arg Pro Lys His Glu
380 385 390

Ser Lys Pro Pro Leu Pro Pro Thr Val Gly Ala Thr Glu Pro Gly
395 400 405

Pro Glu Thr Asp Ala Asp Ala Glu His Ile Ser Phe His Lys Ile
410 415 420

Ile Ala Gly Ser Val Ala Leu Phe Leu Ser Val Leu Val Ile Leu
425 430 435

Leu Val Ile Tyr Val Ser Trp Lys Arg Tyr Pro Ala Ser Met Lys
440 445 450

Gln Leu Gln Gln Arg Ser Leu Met Arg Arg His Arg Lys Lys Lys
455 460 465

Arg Gln Ser Leu Lys Gln Met Thr Pro Ser Thr Gln Glu Phe Tyr
470 475 480

Val Asp Tyr Lys Pro Thr Asn Thr Glu Thr Ser Glu Met Leu Leu
485 490 495

Asn Gly Thr Gly Pro Cys Thr Tyr Asn Lys Ser Gly Ser Arg Glu
500 505 510

Cys Glu Val

<210> 125
<211> 998
<212> DNA
<213> Homo Sapien

<400> 125
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aggcttttgc cgctgaccca gagatggccc cgagcgagca aattcctact 100

gtccggctgc gcggctaccg tggccgagct agcaaccttt cccctggatc 150

tcacaaaaac tcgactccaa atgcaaggag aagcagctct tgctcggttg 200

ggagacggtg caagagaatc tgccccctat aggggaatgg tgcgcacagc 250

cctagggatc attgaagagg aaggctttct aaagctttgg caaggagtga 300

cacccgccat ttacagacac gtagtgtatt ctggaggtcg aatggtcaca 350

tatgaacatc tccgagaggt tgtgtttggc aaaagtgaag atgagcatta 400

tccccttttgg aaatcagtca ttggagggat gatggctggt gttattggcc 450

agtttttagc caatccaact gacctagtga aggttcagat gcaaatggaa 500

ggaaaaagga aactggaagg aaaaccattg cgatttcgtg gtgtacatca 550

tgcatttgca aaaatcttag ctgaaggagg aatacgaggg ctttgggcag 600

gctgggtacc caatatacaa agagcagcac tggtgaatat gggagattta 650

accacttatg atacagtgaa acactacttg gtattgaata caccacttga 700

ggacaatatc atgactcacg gtttatcaag tttatgttct ggactggtag 750

cttctattct gggaacacca gccgatgtca tcaaaagcag aataatgaat 800

caaccacgag ataaacaagg aaggggactt ttgtataaat catcgactga 850

ctgcttgatt caggctgttc aaggtgaagg attcatgagt ctatataaag 900

gctttttacc atcttggctg agaatgaccc cttggtcaat ggtgttctgg 950

cttacttatg aaaaaatcag agagatgagt ggagtcagtc cattttaa 998

<210> 126
<211> 323
<212> PRT
<213> Homo Sapien

<400> 126

Met	Ser	Val	Pro	Glu	Glu	Glu	Glu	Arg	Leu	Leu	Pro	Leu	Thr	Gln	
1				5				10						15	
Arg	Trp	Pro	Arg	Ala	Ser	Lys	Phe	Leu	Leu	Ser	Gly	Cys	Ala	Ala	
			20					25						30	
Thr	Val	Ala	Glu	Leu	Ala	Thr	Phe	Pro	Leu	Asp	Leu	Thr	Lys	Thr	
			35					40						45	
Arg	Leu	Gln	Met	Gln	Gly	Glu	Ala	Ala	Leu	Ala	Arg	Leu	Gly	Asp	
			50					55						60	
Gly	Ala	Arg	Glu	Ser	Ala	Pro	Tyr	Arg	Gly	Met	Val	Arg	Thr	Ala	
			65					70						75	
Leu	Gly	Ile	Ile	Glu	Glu	Glu	Gly	Phe	Leu	Lys	Leu	Trp	Gln	Gly	
			80					85						90	
Val	Thr	Pro	Ala	Ile	Tyr	Arg	His	Val	Val	Tyr	Ser	Gly	Gly	Arg	
			95					100						105	
Met	Val	Thr	Tyr	Glu	His	Leu	Arg	Glu	Val	Val	Phe	Gly	Lys	Ser	
			110					115						120	

```
Glu Asp Glu His Tyr Pro Leu Trp Lys Ser Val Ile Gly Gly Met
                125                 130                 135
Met Ala Gly Val Ile Gly Gln Phe Leu Ala Asn Pro Thr Asp Leu
                140                 145                 150

Val Lys Val Gln Met Gln Met Glu Gly Lys Arg Lys Leu Glu Gly
                155                 160                 165

Lys Pro Leu Arg Phe Arg Gly Val His His Ala Phe Ala Lys Ile
                170                 175                 180

Leu Ala Glu Gly Gly Ile Arg Gly Leu Trp Ala Gly Trp Val Pro
                185                 190                 195

Asn Ile Gln Arg Ala Ala Leu Val Asn Met Gly Asp Leu Thr Thr
                200                 205                 210

Tyr Asp Thr Val Lys His Tyr Leu Val Leu Asn Thr Pro Leu Glu
                215                 220                 225

Asp Asn Ile Met Thr His Gly Leu Ser Ser Leu Cys Ser Gly Leu
                230                 235                 240

Val Ala Ser Ile Leu Gly Thr Pro Ala Asp Val Ile Lys Ser Arg
                245                 250                 255

Ile Met Asn Gln Pro Arg Asp Lys Gln Gly Arg Gly Leu Leu Tyr
                260                 265                 270

Lys Ser Ser Thr Asp Cys Leu Ile Gln Ala Val Gln Gly Glu Gly
                275                 280                 285

Phe Met Ser Leu Tyr Lys Gly Phe Leu Pro Ser Trp Leu Arg Met
                290                 295                 300

Thr Pro Trp Ser Met Val Phe Trp Leu Thr Tyr Glu Lys Ile Arg
                305                 310                 315

Glu Met Ser Gly Val Ser Pro Phe
                320
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<210> 127
<211> 1505
<212> DNA
<213> Homo Sapien

<400> 127
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cgtcagctcc tcgacccccg tgtcgggcta gtccagcgag gcggacgggc 100

ggcgtgggcc catggccagg cccggcatgg agcggtggcg cgaccggctg 150

gcgctggtga cgggggcctc gggggggcatc ggcgcggccg tggcccgggc 200

cctggtccag cagggactga aggtggtggg ctgcgcccgc actgtgggca 250

acatcgagga gctggctgct gaatgtaaga gtgcaggcta ccccgggact 300

ttgatcccct acagatgtga cctatcaaat gaagaggaca tcctctccat 350

gttctcagct atccgttctc agcacagcgg tgtagacatc tgcatcaaca 400
atgctggctt ggcccggcct gacaccctgc tctcaggcag caccagtggt 450

tggaaggaca tgttcaatgt gaacgtgctg gccctcagca tctgcacacg 500

ggaagcctac cagtccatga aggagcggaa tgtggacgat gggcacatca 550

ttaacatcaa tagcatgtct ggccaccgag tgttacccct gtctgtgacc 600

cacttctata gtgccaccaa gtatgccgtc actgcgctga cagagggact 650

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tgggagctcc tccttccctc cccacccttc atggcttgcc tcctgcctct 950

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ccttctcggc tccccagccc agtcttggct tcttgtcccc tcctggggtc 1400

atccctccac tctgactctg actatggcag cagaacacca gggcctggcc 1450

cagtggattt catggtgatc attaaaaaag aaaaatcgca accaaaaaaa 1500

aaaaa 1505

<210> 128
<211> 260
<212> PRT
<213> Homo Sapien

<400> 128

```
Met Ala Arg Pro Gly Met Glu Arg Trp Arg Asp Arg Leu Ala Leu
  1               5                  10                  15

Val Thr Gly Ala Ser Gly Gly Ile Gly Ala Ala Val Ala Arg Ala
             20                  25                  30

Leu Val Gln Gln Gly Leu Lys Val Val Gly Cys Ala Arg Thr Val
             35                  40                  45
Gly Asn Ile Glu Glu Leu Ala Ala Glu Cys Lys Ser Ala Gly Tyr
             50                  55                  60

Pro Gly Thr Leu Ile Pro Tyr Arg Cys Asp Leu Ser Asn Glu Glu
             65                  70                  75

Asp Ile Leu Ser Met Phe Ser Ala Ile Arg Ser Gln His Ser Gly
             80                  85                  90

Val Asp Ile Cys Ile Asn Asn Ala Gly Leu Ala Arg Pro Asp Thr
             95                 100                 105

Leu Leu Ser Gly Ser Thr Ser Gly Trp Lys Asp Met Phe Asn Val
            110                 115                 120

Asn Val Leu Ala Leu Ser Ile Cys Thr Arg Glu Ala Tyr Gln Ser
            125                 130                 135

Met Lys Glu Arg Asn Val Asp Asp Gly His Ile Ile Asn Ile Asn
            140                 145                 150

Ser Met Ser Gly His Arg Val Leu Pro Leu Ser Val Thr His Phe
            155                 160                 165

Tyr Ser Ala Thr Lys Tyr Ala Val Thr Ala Leu Thr Glu Gly Leu
            170                 175                 180

Arg Gln Glu Leu Arg Glu Ala Gln Thr His Ile Arg Ala Thr Cys
            185                 190                 195

Ile Ser Pro Gly Val Val Glu Thr Gln Phe Ala Phe Lys Leu His
            200                 205                 210

Asp Lys Asp Pro Glu Lys Ala Ala Ala Thr Tyr Glu Gln Met Lys
            215                 220                 225

Cys Leu Lys Pro Glu Asp Val Ala Glu Ala Val Ile Tyr Val Leu
            230                 235                 240

Ser Thr Pro Ala His Ile Gln Ile Gly Asp Ile Gln Met Arg Pro
            245                 250                 255

Thr Glu Gln Val Thr
            260
```

<210> 129
<211> 1177
<212> DNA

<213> Homo Sapien

<400> 129
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tcaggtgcag agtctcagtt gcccgggagc acctcccctc ccgaggcagt 150

ctgctcagag ggcctcggcc cagaattcca gttctggttt catgccagcc 200

tgtaaaaggc catggaactt tgggtgaatc accgatgcca tttaagaggg 250
ttttctgcca ggatggaaat gttaggtcgt tctgtgtctg cgctgttcat 300

ttcagtagcc accagccacc tgtggccgtt gagtgcttga aatgaggaac 350

tgagaaaatt aatttctcat gtatttttct catttattta ttaattttta 400

actgatagtt gtacatattt gggggtacat gtgatatttg gatacatgta 450

tacaatatat aatgatcaaa tcagggtaac tgggatatcc atcacatcaa 500

acatttattt tttattcttt ttagacagag tctcactctg tcacccaggc 550

tggagtgcag tggtgccatc tcagcttact gcaacctctg cctgccaggt 600

tcaagcgatt ctcatgcctc cacctcccaa gtagctggga ctacaggcat 650

gcaccacaat gcccaactaa tttttgtatt tttagtagag acggggtttt 700

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tcttccctct atctaactgt atatttgtac cagttaacca accgtacttc 950

atccccactc ctctctatcc ttcccaacct ctgatcacct cattctactc 1000

tctacctcca tgagatccac ttttttagct cccacatgtg agtaagaaaa 1050

tgcaatattt gtctttctgt gcctggctta tttcacttaa cataatgact 1100

tcctgttcca tccatgttgc tgcaaatgac aggatttcgt tcttaatttc 1150

aattaaaata accacacatg gcaaaaa 1177

<210> 130
<211> 111
<212> PRT
<213> Homo Sapien

<400> 130
Met Gly Leu Leu Leu Leu Val Leu Phe Leu Ser Leu Leu Pro Val

```
  1               5                  10                  15

Ala Tyr Thr Ile Met Ser Leu Pro Pro Ser Phe Asp Cys Gly Pro
                 20                  25                  30

Phe Arg Cys Arg Val Ser Val Ala Arg Glu His Leu Pro Ser Arg
                 35                  40                  45

Gly Ser Leu Leu Arg Gly Pro Arg Pro Arg Ile Pro Val Leu Val
                 50                  55                  60

Ser Cys Gln Pro Val Lys Gly His Gly Thr Leu Gly Glu Ser Pro
                 65                  70                  75

Met Pro Phe Lys Arg Val Phe Cys Gln Asp Gly Asn Val Arg Ser
                 80                  85                  90

Phe Cys Val Cys Ala Val His Phe Ser Ser His Gln Pro Pro Val
                 95                 100                 105

Ala Val Glu Cys Leu Lys
                110
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<210> 131
<211> 2061
<212> DNA
<213> Homo Sapien

<400> 131

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atgatcagcg cagcctggag catcttcctc atcgggacta aaattgggct 100

gttccttcaa gtagcacctc tatcagttat ggctaaatcc tgtccatctg 150

tgtgtcgctg cgatgcgggt ttcatttact gtaatgatcg ctttctgaca 200

tccattccaa caggaatacc agaggatgct acaactctct accttcagaa 250

caaccaaata ataatgctg ggattccttc agatttgaaa aacttgctga 300

aagtagaaag aatataccta taccacaaca gtttagatga atttcctacc 350

aacctcccaa agtatgtaaa agagttacat ttgcaagaaa ataacataag 400

gactatcact tatgattcac tttcaaaaat tccctatctg gaagaattac 450

atttagatga caactctgtc tctgcagtta gcatagaaga gggagcattc 500

cgagacagca actatctccg actgcttttc ctgtcccgta atcaccttag 550

cacaattccc tggggtttgc ccaggactat agaagaacta cgcttggatg 600

ataatcgcat atccactatt tcatcaccat ctcttcaagg tctcactagt 650

ctaaaacgcc tggttctaga tggaaacctg ttgaacaatc atggtttagg 700
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tgacaaagtt ttcttcaacc tagttaattt gacagagctg tccctggtgc 750

ggaattccct gactgctgca ccagtaaacc ttccaggcac aaacctgagg 800

aagctttatc ttcaagataa ccacatcaat cgggtgcccc caaatgcttt 850

ttcttatcta aggcagctct atcgactgga tatgtccaat aataacctaa 900

gtaatttacc tcagggtatc tttgatgatt tggacaatat aacacaactg 950

attcttcgca acaatccctg gtattgcggg tgcaagatga aatgggtacg 1000

tgactggtta caatcactac ctgtgaaggt caacgtgcgt gggctcatgt 1050

gccaagcccc agaaaaggtt cgtgggatgg ctattaagga tctcaatgca 1100

gaactgtttg attgtaagga cagtgggatt gtaagcacca ttcagataac 1150

cactgcaata cccaacacag tgtatcctgc ccaaggacag tggccagctc 1200

cagtgaccaa acagccagat attaagaacc ccaagctcac taaggatcaa 1250

caaaccacag ggagtccctc aagaaaaaca attacaatta ctgtgaagtc 1300

tgtcacctct gataccattc atatctcttg gaaacttgct ctacctatga 1350

ctgctttgag actcagctgg cttaaactgg gccatagccc ggcatttgga 1400

tctataacag aaacaattgt aacaggggaa cgcagtgagt acttggtcac 1450

agccctggag cctgattcac cctataaagt atgcatggtt cccatggaaa 1500

ccagcaacct ctacctattt gatgaaactc ctgtttgtat tgagactgaa 1550

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tatgttcata ggaatggatc gctcttctca aggaactgtg catatagcaa 1750

agggaggaga agaaaggatg actatgcaga agctggcact aagaaggaca 1800

actctatcct ggaaatcagg gaaacttctt ttcagatgtt accaataagc 1850

aatgaaccca tctcgaagga ggagtttgta atacacacca tatttcctcc 1900

taatggaatg aatctgtaca aaaacaatca cagtgaaagc agtagtaacc 1950

gaagctacag agacagtggt attccagact cagatcactc acactcatga 2000

tgctgaagga ctcacagcag acttgtgttt tgggtttttt aaacctaagg 2050

gaggtgatgg t 2061

<210> 132

<211> 649
<212> PRT
<213> Homo Sapien

<400> 132

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 Met Ile Ser Ala Ala Trp Ser Ile Phe Leu Ile Gly Thr Lys Ile
   1               5                  10                  15

 Gly Leu Phe Leu Gln Val Ala Pro Leu Ser Val Met Ala Lys Ser
                20                  25                  30

 Cys Pro Ser Val Cys Arg Cys Asp Ala Gly Phe Ile Tyr Cys Asn
                35                  40                  45

 Asp Arg Phe Leu Thr Ser Ile Pro Thr Gly Ile Pro Glu Asp Ala
                50                  55                  60

 Thr Thr Leu Tyr Leu Gln Asn Asn Gln Ile Asn Asn Ala Gly Ile
                65                  70                  75

 Pro Ser Asp Leu Lys Asn Leu Leu Lys Val Glu Arg Ile Tyr Leu
                80                  85                  90

 Tyr His Asn Ser Leu Asp Glu Phe Pro Thr Asn Leu Pro Lys Tyr
                95                 100                 105

 Val Lys Glu Leu His Leu Gln Glu Asn Asn Ile Arg Thr Ile Thr
               110                 115                 120

 Tyr Asp Ser Leu Ser Lys Ile Pro Tyr Leu Glu Glu Leu His Leu
               125                 130                 135

 Asp Asp Asn Ser Val Ser Ala Val Ser Ile Glu Glu Gly Ala Phe
               140                 145                 150

 Arg Asp Ser Asn Tyr Leu Arg Leu Leu Phe Leu Ser Arg Asn His
               155                 160                 165

 Leu Ser Thr Ile Pro Trp Gly Leu Pro Arg Thr Ile Glu Glu Leu
               170                 175                 180

 Arg Leu Asp Asp Asn Arg Ile Ser Thr Ile Ser Ser Pro Ser Leu
               185                 190                 195

 Gln Gly Leu Thr Ser Leu Lys Arg Leu Val Leu Asp Gly Asn Leu
               200                 205                 210

 Leu Asn Asn His Gly Leu Gly Asp Lys Val Phe Phe Asn Leu Val
               215                 220                 225

 Asn Leu Thr Glu Leu Ser Leu Val Arg Asn Ser Leu Thr Ala Ala
               230                 235                 240

 Pro Val Asn Leu Pro Gly Thr Asn Leu Arg Lys Leu Tyr Leu Gln
               245                 250                 255

 Asp Asn His Ile Asn Arg Val Pro Pro Asn Ala Phe Ser Tyr Leu
```

```
                260                 265                 270

Arg Gln Leu Tyr Arg Leu Asp Met Ser Asn Asn Asn Leu Ser Asn
                275                 280                 285

Leu Pro Gln Gly Ile Phe Asp Asp Leu Asp Asn Ile Thr Gln Leu
                290                 295                 300

Ile Leu Arg Asn Asn Pro Trp Tyr Cys Gly Cys Lys Met Lys Trp
                305                 310                 315

Val Arg Asp Trp Leu Gln Ser Leu Pro Val Lys Val Asn Val Arg
                320                 325                 330

Gly Leu Met Cys Gln Ala Pro Glu Lys Val Arg Gly Met Ala Ile
                335                 340                 345

Lys Asp Leu Asn Ala Glu Leu Phe Asp Cys Lys Asp Ser Gly Ile
                350                 355                 360

Val Ser Thr Ile Gln Ile Thr Thr Ala Ile Pro Asn Thr Val Tyr
                365                 370                 375

Pro Ala Gln Gly Gln Trp Pro Ala Pro Val Thr Lys Gln Pro Asp
                380                 385                 390

Ile Lys Asn Pro Lys Leu Thr Lys Asp Gln Gln Thr Thr Gly Ser
                395                 400                 405

Pro Ser Arg Lys Thr Ile Thr Ile Thr Val Lys Ser Val Thr Ser
                410                 415                 420

Asp Thr Ile His Ile Ser Trp Lys Leu Ala Leu Pro Met Thr Ala
                425                 430                 435

Leu Arg Leu Ser Trp Leu Lys Leu Gly His Ser Pro Ala Phe Gly
                440                 445                 450

Ser Ile Thr Glu Thr Ile Val Thr Gly Glu Arg Ser Glu Tyr Leu
                455                 460                 465

Val Thr Ala Leu Glu Pro Asp Ser Pro Tyr Lys Val Cys Met Val
                470                 475                 480

Pro Met Glu Thr Ser Asn Leu Tyr Leu Phe Asp Glu Thr Pro Val
                485                 490                 495

Cys Ile Glu Thr Glu Thr Ala Pro Leu Arg Met Tyr Asn Pro Thr
                500                 505                 510

Thr Thr Leu Asn Arg Glu Gln Glu Lys Glu Pro Tyr Lys Asn Pro
                515                 520                 525

Asn Leu Pro Leu Ala Ala Ile Ile Gly Gly Ala Val Ala Leu Val
                530                 535                 540

Thr Ile Ala Leu Leu Ala Leu Val Cys Trp Tyr Val His Arg Asn
```

545 550 555

Gly Ser Leu Phe Ser Arg Asn Cys Ala Tyr Ser Lys Gly Arg Arg
560 565 570

Arg Lys Asp Asp Tyr Ala Glu Ala Gly Thr Lys Lys Asp Asn Ser
575 580 585

Ile Leu Glu Ile Arg Glu Thr Ser Phe Gln Met Leu Pro Ile Ser
590 595 600

Asn Glu Pro Ile Ser Lys Glu Glu Phe Val Ile His Thr Ile Phe
605 610 615

Pro Pro Asn Gly Met Asn Leu Tyr Lys Asn Asn His Ser Glu Ser
620 625 630

Ser Ser Asn Arg Ser Tyr Arg Asp Ser Gly Ile Pro Asp Ser Asp
635 640 645

His Ser His Ser

<210> 133
<211> 1882
<212> DNA
<213> Homo Sapien
<400> 133
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ccaggcttct tggcagccct gccgggccac ttgtcttcat gtctgccagg 100

gggaggtggg aaggaggtgg gaggagggcg tgcagaggca gtctgggctt 150

ggccagagct cagggtgctg agcgtgtgac cagcagtgag cagaggccgg 200

ccatggccag cctggggctg ctgctcctgc tcttactgac agcactgcca 250

ccgctgtggt cctcctcact gcctgggctg gacactgctg aaagtaaagc 300

caccattgca gacctgatcc tgtctgcgct ggagagagcc accgtcttcc 350

tagaacagag gctgcctgaa atcaacctgg atggcatggt gggggtccga 400

gtgctggaag agcagctaaa aagtgtccgg gagaagtggg cccaggagcc 450

cctgctgcag ccgctgagcc tgcgcgtggg gatgctgggg gagaagctgg 500

aggctgccat ccagagatcc ctccactacc tcaagctgag tgatcccaag 550

tacctaagag agttccagct gaccctccag cccgggtttt ggaagctccc 600

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tcttcatgga aaacatcatg ttctgtggaa tgggcggctt ctccgacttc 1000

tacaagctcc ggtggctgga ggccattctc agctggcaga aacagcagga 1050

aggatgcttc ggggagcctg atgctgaaga tgaagaatta tctaaagcta 1100

ttcaatatca gcagcatttt tcgaggagag tgaagaggcg agaaaaacaa 1150

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tgggattata ggtgtgagcc accgtgtctg gctgaaaagc actttcaaag 1450

agactgtgtt gaataaaggg ccaaggttct tgccacccag cactcatggg 1500
ggctctctcc cctagatggc tgctcctccc acaacacagc cacagcagtg 1550

gcagccctgg gtggcttcct atacatcctg gcagaatacc ccccagcaaa 1600

cagagagcca cacccatcca caccgccacc accaagcagc cgctgagacg 1650

gacggttcca tgccagctgc ctggaggagg aacagacccc tttagtcctc 1700

atcccttaga tcctggaggg cacggatcac atcctgggaa gaaggcatct 1750

ggaggataag caaagccacc ccgacaccca atcttggaag ccctgagtag 1800

gcagggccag ggtaggtggg ggccgggagg gacccaggtg tgaacggatg 1850

aataaagttc aactgcaact gaaaaaaaaa aa 1882

<210> 134
<211> 440
<212> PRT
<213> Homo Sapien

<400> 134
Met Ser Ala Arg Gly Arg Trp Glu Gly Gly Gly Arg Arg Ala Cys
1 5 10 15

Arg Gly Ser Leu Gly Leu Ala Arg Ala Gln Gly Ala Glu Arg Val
20 25 30

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Thr Ser Ser Glu Gln Arg Pro Ala Met Ala Ser Leu Gly Leu Leu
                 35                  40                  45

Leu Leu Leu Leu Leu Thr Ala Leu Pro Pro Leu Trp Ser Ser Ser
                 50                  55                  60

Leu Pro Gly Leu Asp Thr Ala Glu Ser Lys Ala Thr Ile Ala Asp
                 65                  70                  75

Leu Ile Leu Ser Ala Leu Glu Arg Ala Thr Val Phe Leu Glu Gln
                 80                  85                  90

Arg Leu Pro Glu Ile Asn Leu Asp Gly Met Val Gly Val Arg Val
                 95                 100                 105

Leu Glu Glu Gln Leu Lys Ser Val Arg Glu Lys Trp Ala Gln Glu
                110                 115                 120

Pro Leu Leu Gln Pro Leu Ser Leu Arg Val Gly Met Leu Gly Glu
                125                 130                 135

Lys Leu Glu Ala Ala Ile Gln Arg Ser Leu His Tyr Leu Lys Leu
                140                 145                 150

Ser Asp Pro Lys Tyr Leu Arg Glu Phe Gln Leu Thr Leu Gln Pro
                155                 160                 165

Gly Phe Trp Lys Leu Pro His Ala Trp Ile His Thr Asp Ala Ser
                170                 175                 180

Leu Val Tyr Pro Thr Phe Gly Pro Gln Asp Ser Phe Ser Glu Glu
                185                 190                 195
Arg Ser Asp Val Cys Leu Val Gln Leu Leu Gly Thr Gly Thr Asp
                200                 205                 210

Ser Ser Glu Pro Cys Gly Leu Ser Asp Leu Cys Arg Ser Leu Met
                215                 220                 225

Thr Lys Pro Gly Cys Ser Gly Tyr Cys Leu Ser His Gln Leu Leu
                230                 235                 240

Phe Phe Leu Trp Ala Arg Met Arg Gly Cys Thr Gln Gly Pro Leu
                245                 250                 255

Gln Gln Ser Gln Asp Tyr Ile Asn Leu Phe Cys Ala Asn Met Met
                260                 265                 270

Asp Leu Asn Arg Arg Ala Glu Ala Ile Gly Tyr Ala Tyr Pro Thr
                275                 280                 285

Arg Asp Ile Phe Met Glu Asn Ile Met Phe Cys Gly Met Gly Gly
                290                 295                 300

Phe Ser Asp Phe Tyr Lys Leu Arg Trp Leu Glu Ala Ile Leu Ser
                305                 310                 315
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Trp Gln Lys Gln Gln Glu Gly Cys Phe Gly Glu Pro Asp Ala Glu
320 325 330

Asp Glu Glu Leu Ser Lys Ala Ile Gln Tyr Gln Gln His Phe Ser
335 340 345

Arg Arg Val Lys Arg Arg Glu Lys Gln Phe Pro Asp Ser Arg Ser
350 355 360

Val Ala Gln Ala Gly Val Gln Trp Arg Asn Leu Gly Ser Leu Gln
365 370 375

Pro Leu Pro Pro Gly Phe Lys Gln Phe Ser Cys Leu Ile Leu Pro
380 385 390

Ser Ser Trp Asp Tyr Arg Ser Val Pro Pro Tyr Leu Ala Asn Phe
395 400 405

Tyr Ile Phe Leu Val Glu Thr Gly Phe His His Val Ala His Ala
410 415 420

Gly Leu Glu Leu Leu Ile Ser Arg Asp Pro Pro Thr Ser Gly Ser
425 430 435

Gln Ser Val Gly Leu
440

<210> 135
<211> 884
<212> DNA
<213> Homo Sapien

<400> 135
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cccgtcctgc tgctgctgct gctatcgggg gatgtccaga gctcggaggt 100
gcccggggct gctgctgagg gatcgggagg gagtggggtc ggcataggag 150

atcgcttcaa gattgagggg cgtgcagttg ttccaggggt gaagcctcag 200

gactggatct cggcggcccg agtgctggta gacggagaag agcacgtcgg 250

tttccttaag acagatggga gttttgtggt tcatgatata ccttctggat 300

cttatgtagt ggaagttgta tctccagctt acagatttga tcccgttcga 350

gtggatatca cttcgaaagg aaaaatgaga gcaagatatg tgaattacat 400

caaaacatca gaggttgtca gactgcccta tcctctccaa atgaaatctt 450

caggtccacc ttcttacttt attaaaaggg aatcgtgggg ctggacagac 500

tttctaatga acccaatggt tatgatgatg gttcttcctt tattgatatt 550

tgtgcttctg cctaaagtgg tcaacacaag tgatcctgac atgagacggg 600

aaatggagca gtcaatgaat atgctgaatt ccaaccatga gttgcctgat 650

gtttctgagt tcatgacaag actcttctct tcaaaatcat ctggcaaatc 700

tagcagcggc agcagtaaaa caggcaaaag tggggctggc aaaaggaggt 750

agtcaggccg tccagagctg gcatttgcac aaacacggca acactgggtg 800

gcatccaagt cttggaaaac cgtgtgaagc aactactata aacttgagtc 850

atcccgacgt tgatctctta caactgtgta tgtt 884

<210> 136
<211> 242
<212> PRT
<213> Homo Sapien

<400> 136

Met	Ala	Ala	Ala	Leu	Trp	Gly	Phe	Phe	Pro	Val	Leu	Leu	Leu	Leu	
1				5					10						15
Leu	Leu	Ser	Gly	Asp	Val	Gln	Ser	Ser	Glu	Val	Pro	Gly	Ala	Ala	
				20					25						30
Ala	Glu	Gly	Ser	Gly	Gly	Ser	Gly	Val	Gly	Ile	Gly	Asp	Arg	Phe	
				35					40						45
Lys	Ile	Glu	Gly	Arg	Ala	Val	Val	Pro	Gly	Val	Lys	Pro	Gln	Asp	
				50					55						60
Trp	Ile	Ser	Ala	Ala	Arg	Val	Leu	Val	Asp	Gly	Glu	Glu	His	Val	
				65					70						75
Gly	Phe	Leu	Lys	Thr	Asp	Gly	Ser	Phe	Val	Val	His	Asp	Ile	Pro	
				80					85						90
Ser	Gly	Ser	Tyr	Val	Val	Glu	Val	Val	Ser	Pro	Ala	Tyr	Arg	Phe	
				95					100						105
Asp	Pro	Val	Arg	Val	Asp	Ile	Thr	Ser	Lys	Gly	Lys	Met	Arg	Ala	
				110					115						120
Arg	Tyr	Val	Asn	Tyr	Ile	Lys	Thr	Ser	Glu	Val	Val	Arg	Leu	Pro	
				125					130						135
Tyr	Pro	Leu	Gln	Met	Lys	Ser	Ser	Gly	Pro	Pro	Ser	Tyr	Phe	Ile	
				140					145						150
Lys	Arg	Glu	Ser	Trp	Gly	Trp	Thr	Asp	Phe	Leu	Met	Asn	Pro	Met	
				155					160						165
Val	Met	Met	Met	Val	Leu	Pro	Leu	Leu	Ile	Phe	Val	Leu	Leu	Pro	
				170					175						180
Lys	Val	Val	Asn	Thr	Ser	Asp	Pro	Asp	Met	Arg	Arg	Glu	Met	Glu	
				185					190						195
Gln	Ser	Met	Asn	Met	Leu	Asn	Ser	Asn	His	Glu	Leu	Pro	Asp	Val	

200 205 210

Ser Glu Phe Met Thr Arg Leu Phe Ser Ser Lys Ser Ser Gly Lys
215 220 225

Ser Ser Ser Gly Ser Ser Lys Thr Gly Lys Ser Gly Ala Gly Lys
230 235 240

Arg Arg

<210> 137
<211> 1571
<212> DNA
<213> Homo Sapien

<400> 137
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gtgggtctga ggggaccaga agggtgagct acgttggctt tctggaaggg 100

gaggctatat gcgtcaattc cccaaaacaa gttttgacat ttcccctgaa 150

atgtcattct ctatctattc actgcaagtg cctgctgttc caggccttac 200

ctgctgggca ctaacggcgg agccaggatg gggacagaat aaaggagcca 250

cgacctgtgc caccaactcg cactcagact ctgaactcag acctgaaatc 300

ttctcttcac gggaggcttg gcagtttttc ttactcctgt ggtctccaga 350

tttcaggcct aagatgaaag cctctagtct tgccttcagc cttctctctg 400

ctgcgtttta tctcctatgg actccttcca ctggactgaa gacactcaat 450

ttgggaagct gtgtgatcgc cacaaacctt caggaaatac gaaatggatt 500

ttctgagata cggggcagtg tgcaagccaa agatggaaac attgacatca 550

gaatcttaag gaggactgag tctttgcaag acacaaagcc tgcgaatcga 600

tgctgcctcc tgcgccattt gctaagactc tatctggaca gggtatttaa 650
aaactaccag acccctgacc attatactct ccggaagatc agcagcctcg 700

ccaattcctt tcttaccatc aagaaggacc tccggctctc tcatgcccac 750

atgacatgcc attgtgggga ggaagcaatg aagaaataca gccagattct 800

gagtcacttt gaaaagctgg aacctcaggc agcagttgtg aaggctttgg 850

gggaactaga cattcttctg caatggatgg aggagacaga ataggaggaa 900

agtgatgctg ctgctaagaa tattcgaggt caagagctcc agtcttcaat 950

acctgcagag gaggcatgac cccaaaccac catctcttta ctgtactagt 1000

cttgtgctgg tcacagtgta tcttatttat gcattacttg cttccttgca 1050

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atttttgtaa tatctttctg ctattggata tatttattag ttaatatatt 1150

tatttatttt ttgctattta atgtatttat ttttttactt ggacatgaaa 1200

ctttaaaaaa attcacagat tatatttata acctgactag agcaggtgat 1250

gtatttttat acagtaaaaa aaaaaaacct tgtaaattct agaagagtgg 1300

ctaggggggt tattcatttg tattcaacta aggacatatt tactcatgct 1350

gatgctctgt gagatatttg aaattgaacc aatgactact taggatgggt 1400

tgtggaataa gttttgatgt ggaattgcac atctacctta caattactga 1450

ccatccccag tagactcccc agtcccataa ttgtgtatct tccagccagg 1500

aatcctacac ggccagcatg tatttctaca aataaagttt tctttgcata 1550

ccaaaaaaaa aaaaaaaaaa a 1571

<210> 138
<211> 261
<212> PRT
<213> Homo Sapien

<400> 138

Met	Arg	Gln	Phe	Pro	Lys	Thr	Ser	Phe	Asp	Ile	Ser	Pro	Glu	Met	
1					5				10					15	
Ser	Phe	Ser	Ile	Tyr	Ser	Leu	Gln	Val	Pro	Ala	Val	Pro	Gly	Leu	
					20				25					30	
Thr	Cys	Trp	Ala	Leu	Thr	Ala	Glu	Pro	Gly	Trp	Gly	Gln	Asn	Lys	
					35				40					45	
Gly	Ala	Thr	Thr	Cys	Ala	Thr	Asn	Ser	His	Ser	Asp	Ser	Glu	Leu	
					50				55					60	
Arg	Pro	Glu	Ile	Phe	Ser	Ser	Arg	Glu	Ala	Trp	Gln	Phe	Phe	Leu	
					65				70					75	
Leu	Leu	Trp	Ser	Pro	Asp	Phe	Arg	Pro	Lys	Met	Lys	Ala	Ser	Ser	
					80				85					90	
Leu	Ala	Phe	Ser	Leu	Leu	Ser	Ala	Ala	Phe	Tyr	Leu	Leu	Trp	Thr	
					95				100					105	
Pro	Ser	Thr	Gly	Leu	Lys	Thr	Leu	Asn	Leu	Gly	Ser	Cys	Val	Ile	
					110				115					120	
Ala	Thr	Asn	Leu	Gln	Glu	Ile	Arg	Asn	Gly	Phe	Ser	Glu	Ile	Arg	
					125				130					135	
Gly	Ser	Val	Gln	Ala	Lys	Asp	Gly	Asn	Ile	Asp	Ile	Arg	Ile	Leu	

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                140                 145                 150

Arg Arg Thr Glu Ser Leu Gln Asp Thr Lys Pro Ala Asn Arg Cys
                155                 160                 165

Cys Leu Leu Arg His Leu Leu Arg Leu Tyr Leu Asp Arg Val Phe
                170                 175                 180

Lys Asn Tyr Gln Thr Pro Asp His Tyr Thr Leu Arg Lys Ile Ser
                185                 190                 195

Ser Leu Ala Asn Ser Phe Leu Thr Ile Lys Lys Asp Leu Arg Leu
                200                 205                 210

Ser His Ala His Met Thr Cys His Cys Gly Glu Glu Ala Met Lys
                215                 220                 225

Lys Tyr Ser Gln Ile Leu Ser His Phe Glu Lys Leu Glu Pro Gln
                230                 235                 240

Ala Ala Val Val Lys Ala Leu Gly Glu Leu Asp Ile Leu Leu Gln
                245                 250                 255

Trp Met Glu Glu Thr Glu
                260
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<210> 139
<211> 2395
<212> DNA
<213> Homo Sapien

<400> 139

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cctggagccg gaagcgcggc tgcagcaggg cgaggctcca ggtggggtcg 50

gttccgcatc cagcctagcg tgtccacgat gcggctgggc tccgggactt 100

tcgctacctg ttgcgtagcg atcgaggtgc tagggatcgc ggtcttcctt 150

cggggattct tcccggctcc cgttcgttcc tctgccagag cggaacacgg 200

agcggagccc ccagcgcccg aaccctcggc tggagccagt tctaactgga 250

ccacgctgcc accacctctc ttcagtaaag ttgttattgt tctgatagat 300

gccttgagag atgattttgt gtttgggtca aagggtgtga aatttatgcc 350

ctacacaact taccttgtgg aaaaaggagc atctcacagt tttgtggctg 400

aagcaaagcc acctacagtt actatgcctc gaatcaaggc attgatgacg 450

gggagccttc ctggctttgt cgacgtcatc aggaacctca attctcctgc 500

actgctggaa gacagtgtga taagacaagc aaaagcagct ggaaaaagaa 550

tagtctttta tggagatgaa acctgggtta aattattccc aaagcatttt 600

gtggaatatg atggaacaac ctcatttttc gtgtcagatt acacagaggt 650
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ggataataat gtcacgaggc atttggataa agtattaaaa agaggagatt 700

gggacatatt aatcctccac tacctggggc tggaccacat tggccacatt 750

tcagggccca acagcccccc gattgggcag aagctgagcg agatggacag 800

cgtgctgatg aagatccaca cctcactgca gtcgaaggag agagagacgc 850

ctttacccaa tttgctggtt ctttgtggtg accatggcat gtctgaaaca 900

ggaagtcacg gggcctcctc caccgaggag gtgaatacac ctctgatttt 950

aatcagttct gcgtttgaaa ggaaacccgg tgatatccga catccaaagc 1000

acgtccaata gacggatgtg gctgcgacac tggcgatagc acttggctta 1050

ccgattccaa aagacagtgt agggagcctc ctattcccag ttgtggaagg 1100

aagaccaatg agagagcagt tgagattttt acatttgaat acagtgcagc 1150

ttagtaaact gttgcaagag aatgtgccgt catatgaaaa agatcctggg 1200

tttgagcagt ttaaaatgtc agaaagattg catgggaact ggatcagact 1250

gtacttggag gaaaagcatt cagaagtcct attcaacctg ggctccaagg 1300

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tctgctcttt tatttggtga tcctggttct ttcggccgtt cacgtcattg 1500

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ctgcagctga gggaagaaga gacaatcggc ctggacactc aggagggtca 1900

aaaggagact tggtcgcacc actcatcctg ccacccccag aatgcatcct 1950

gcctcatcag gtccagattt ctttccaagg cggacgtttt ctgttggaat 2000

tcttagtcct tggcctcgga caccttcatt cgttagctgg ggagtggtgg 2050

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ggatcaaggg acccactgca gtggcagcag gactgttggg cccccacccc 2150

aaccctgcac agccctcatc ccctcttggc ttgagccgtc agaggccctg 2200

tgctgagtgt ctgaccgaga cactcacagc tttgtcatca gggcacaggc 2250

ttcctcggag ccaggatgat ctgtgccacg cttgcacctc gggcccatct 2300

gggctcatgc tctctctcct gctattgaat tagtacctag ctgcacacag 2350

tatgtagtta ccaaaagaat aaacggcaat aattgagaaa aaaaa 2395

<210> 140
<211> 310
<212> PRT
<213> Homo Sapien

<400> 140

Met	Arg	Leu	Gly	Ser	Gly	Thr	Phe	Ala	Thr	Cys	Cys	Val	Ala	Ile
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Glu	Val	Leu	Gly	Ile	Ala	Val	Phe	Leu	Arg	Gly	Phe	Phe	Pro	Ala
				20				25						30
Pro	Val	Arg	Ser	Ser	Ala	Arg	Ala	Glu	His	Gly	Ala	Glu	Pro	Pro
				35				40						45
Ala	Pro	Glu	Pro	Ser	Ala	Gly	Ala	Ser	Ser	Asn	Trp	Thr	Thr	Leu
				50				55						60
Pro	Pro	Pro	Leu	Phe	Ser	Lys	Val	Val	Ile	Val	Leu	Ile	Asp	Ala
				65				70						75
Leu	Arg	Asp	Asp	Phe	Val	Phe	Gly	Ser	Lys	Gly	Val	Lys	Phe	Met
				80				85						90
Pro	Tyr	Thr	Thr	Tyr	Leu	Val	Glu	Lys	Gly	Ala	Ser	His	Ser	Phe
				95				100						105
Val	Ala	Glu	Ala	Lys	Pro	Pro	Thr	Val	Thr	Met	Pro	Arg	Ile	Lys
				110				115						120
Ala	Leu	Met	Thr	Gly	Ser	Leu	Pro	Gly	Phe	Val	Asp	Val	Ile	Arg
				125				130						135
Asn	Leu	Asn	Ser	Pro	Ala	Leu	Leu	Glu	Asp	Ser	Val	Ile	Arg	Gln
				140				145						150
Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr
				155				160						165
Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr
				170				175						180
Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val

185 190 195

Thr Arg His Leu Asp Lys Val Leu Lys Arg Gly Asp Trp Asp Ile
200 205 210

Leu Ile Leu His Tyr Leu Gly Leu Asp His Ile Gly His Ile Ser
215 220 225

Gly Pro Asn Ser Pro Leu Ile Gly Gln Lys Leu Ser Glu Met Asp
230 235 240

Ser Val Leu Met Lys Ile His Thr Ser Leu Gln Ser Lys Glu Arg
245 250 255

Glu Thr Pro Leu Pro Asn Leu Leu Val Leu Cys Gly Asp His Gly
260 265 270

Met Ser Glu Thr Gly Ser His Gly Ala Ser Ser Thr Glu Glu Val
275 280 285

Asn Thr Pro Leu Ile Leu Ile Ser Ser Ala Phe Glu Arg Lys Pro
290 295 300

Gly Asp Ile Arg His Pro Lys His Val Gln
305 310

<210> 141
<211> 754
<212> DNA
<213> Homo Sapien

<400> 141
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tgatgttact gctgctgttg gagtacaact tccctataga aaacaactgc 150

cagcacctta agaccactca caccttcaga gtgaagaact taaacccgaa 200

gaaattcagc attcatgacc aggatcacaa agtactggtc ctggactctg 250

ggaatctcat agcagttcca gataaaaact acatacgccc agagatcttc 300

tttgcattag cctcatcctt gagctcagcc tctgcggaga aaggaagtcc 350

gattctcctg ggggtctcta aaggggagtt ttgtctctac tgtgacaagg 400

ataaaggaca aagtcatcca tcccttcagc tgaagaagga gaaactgatg 450

aagctggctg cccaaaagga atcagcacgc cggcccttca tcttttatag 500

ggctcaggtg ggctcctgga acatgctgga gtcggcggct caccccggat 550

ggttcatctg cacctcctgc aattgtaatg agcctgttgg ggtgacagat 600

aaatttgaga acaggaaaca cattgaattt tcatttcaac cagtttgcaa 650

agctgaaatg agccccagtg aggtcagcga ttaggaaact gccccattga 700

acgccttcct cgctaatttg aactaattgt ataaaaacac caaacctgct 750

cact 754

<210> 142
<211> 193
<212> PRT
<213> Homo Sapien

<400> 142

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Met Leu Leu Leu Leu Leu Glu Tyr Asn Phe Pro Ile Glu Asn Asn
  1               5                  10                  15

Cys Gln His Leu Lys Thr Thr His Thr Phe Arg Val Lys Asn Leu
                20                  25                  30

Asn Pro Lys Lys Phe Ser Ile His Asp Gln Asp His Lys Val Leu
                35                  40                  45

Val Leu Asp Ser Gly Asn Leu Ile Ala Val Pro Asp Lys Asn Tyr
                50                  55                  60

Ile Arg Pro Glu Ile Phe Phe Ala Leu Ala Ser Ser Leu Ser Ser
                65                  70                  75

Ala Ser Ala Glu Lys Gly Ser Pro Ile Leu Leu Gly Val Ser Lys
                80                  85                  90

Gly Glu Phe Cys Leu Tyr Cys Asp Lys Asp Lys Gly Gln Ser His
                95                 100                 105

Pro Ser Leu Gln Leu Lys Lys Glu Lys Leu Met Lys Leu Ala Ala
               110                 115                 120

Gln Lys Glu Ser Ala Arg Arg Pro Phe Ile Phe Tyr Arg Ala Gln
               125                 130                 135

Val Gly Ser Trp Asn Met Leu Glu Ser Ala Ala His Pro Gly Trp
               140                 145                 150

Phe Ile Cys Thr Ser Cys Asn Cys Asn Glu Pro Val Gly Val Thr
               155                 160                 165

Asp Lys Phe Glu Asn Arg Lys His Ile Glu Phe Ser Phe Gln Pro
               170                 175                 180

Val Cys Lys Ala Glu Met Ser Pro Ser Glu Val Ser Asp
               185                 190
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<210> 143
<211> 961
<212> DNA
<213> Homo Sapien

<400> 143

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ctgttgccag tgtggggtga gacaagtttg tcccacaggg ctgtctgagc 150

agataagatt aagggctggg tctgtgctca attaactcct gtgggcacgg 200

gggctgggaa gagcaaagtc agcggtgcct acagtcagca ccatgctggg 250

cctgccgtgg aagggaggtc tgtcctgggc gctgctgctg cttctcttag 300

gctcccagat cctgctgatc tatgcctggc atttccacga gcaaagggac 350

tgtgatgaac acaatgtcat ggctcgttac ctccctgcca cagtggagtt 400

tgctgtccac acattcaacc aacagagcaa ggactactat gcctacagac 450

tggggcacat cttgaattcc tggaaggagc aggtggagtc caagactgta 500

ttctcaatgg agctactgct ggggagaact aggtgtggga aatttgaaga 550

cgacattgac aactgccatt tccaagaaag cacagagctg aacaatactt 600

tcacctgctt cttcaccatc agcaccaggc cctggatgac tcagttcagc 650

ctcctgaaca agacctgctt ggagggattc cactgagtga aacccactca 700

caggcttgtc catgtgctgc tcccacattc cgtggacatc agcactactc 750

tcctgaggac tcttcagtgg ctgagcagct ttggacttgt ttgttatcct 800

attttgcatg tgtttgagat ctcagatcag tgttttagaa aatccacaca 850

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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 950

aaaaaaaaaa a 961

<210> 144
<211> 147
<212> PRT
<213> Homo Sapien

<400> 144
Met Leu Gly Leu Pro Trp Lys Gly Gly Leu Ser Trp Ala Leu Leu
1 5 10 15

Leu Leu Leu Leu Gly Ser Gln Ile Leu Leu Ile Tyr Ala Trp His
20 25 30

Phe His Glu Gln Arg Asp Cys Asp Glu His Asn Val Met Ala Arg
35 40 45

Tyr Leu Pro Ala Thr Val Glu Phe Ala Val His Thr Phe Asn Gln
50 55 60

Gln Ser Lys Asp Tyr Tyr Ala Tyr Arg Leu Gly His Ile Leu Asn
65 70 75

Ser Trp Lys Glu Gln Val Glu Ser Lys Thr Val Phe Ser Met Glu
80 85 90

Leu Leu Leu Gly Arg Thr Arg Cys Gly Lys Phe Glu Asp Asp Ile
95 100 105

Asp Asn Cys His Phe Gln Glu Ser Thr Glu Leu Asn Asn Thr Phe
110 115 120

Thr Cys Phe Phe Thr Ile Ser Thr Arg Pro Trp Met Thr Gln Phe
125 130 135

Ser Leu Leu Asn Lys Thr Cys Leu Glu Gly Phe His
140 145

<210> 145
<211> 1157
<212> DNA
<213> Homo Sapien

<400> 145
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gcccaggtgg ctgagaaccg cccgggagcc ttcatcaagc aaggccgcaa 250

gctcgacatt gacttcggag ccgagggcaa caggtactac gaggccaact 300

actggcagtt ccccgatggc atccactaca acggctgctc tgaggctaat 350

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<210> 146
<211> 176
<212> PRT
<213> Homo Sapien

<400> 146

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Leu	Leu	Phe	Ser	His	Leu	Ser	Ala	Val	Gln	Thr	Arg	Gly	Ile	Lys	
				20				25						30	
His	Arg	Ile	Lys	Trp	Asn	Arg	Lys	Ala	Leu	Pro	Ser	Thr	Ala	Gln	
				35				40						45	
Ile	Thr	Glu	Ala	Gln	Val	Ala	Glu	Asn	Arg	Pro	Gly	Ala	Phe	Ile	
				50				55						60	
Lys	Gln	Gly	Arg	Lys	Leu	Asp	Ile	Asp	Phe	Gly	Ala	Glu	Gly	Asn	
				65				70						75	
Arg	Tyr	Tyr	Glu	Ala	Asn	Tyr	Trp	Gln	Phe	Pro	Asp	Gly	Ile	His	
				80				85						90	
Tyr	Asn	Gly	Cys	Ser	Glu	Ala	Asn	Val	Thr	Lys	Glu	Ala	Phe	Val	
				95				100						105	
Thr	Gly	Cys	Ile	Asn	Ala	Thr	Gln	Ala	Ala	Asn	Gln	Gly	Glu	Phe	
				110				115						120	
Gln	Lys	Pro	Asp	Asn	Lys	Leu	His	Gln	Gln	Val	Leu	Trp	Arg	Leu	
				125				130						135	
Val	Gln	Glu	Leu	Cys	Ser	Leu	Lys	His	Cys	Glu	Phe	Trp	Leu	Glu	
				140				145						150	
Arg	Gly	Ala	Gly	Leu	Arg	Val	Thr	Met	His	Gln	Pro	Val	Leu	Leu	
				155				160						165	
Cys	Leu	Leu	Ala	Leu	Ile	Trp	Leu	Met	Val	Lys					
				170				175							

<210> 147
<211> 333
<212> DNA
<213> Homo Sapien

<400> 147
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ttcttatttt aattagtagc atctactcag agtcatgcaa gctggaaatc 200

tttcattttg cttgtcagtg gggtaggtca ctgagtctta gtttttattt 250

tttgaaattt caactttcag attcaggggg tacatgtgaa ggtttgtttt 300

atgagtatat tgcatgatgc tgaggtttgg ggt 333

<210> 148
<211> 73
<212> PRT
<213> Homo Sapien

<400> 148
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Ser Leu Phe Leu Leu Ile Leu Ile Ser Ser Ile Tyr Ser Glu Ser
20 25 30

Cys Lys Leu Glu Ile Phe His Phe Ala Cys Gln Trp Gly Arg Ser
35 40 45

Leu Ser Leu Ser Phe Tyr Phe Leu Lys Phe Gln Leu Ser Asp Ser
50 55 60

Gly Gly Thr Cys Glu Gly Leu Phe Tyr Glu Tyr Ile Ala
65 70

<210> 149
<211> 1893
<212> DNA
<213> Homo Sapien

<400> 149
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ccccacaccc accctcctgg ctcttcctgt ttttactcct ccttttcatt 200

cataacaaaa gctacagctc caggagccca gcgccgggct gtgacccaag 250

ccgagcgtgg aagaatgggg ttcctcggga ccggcacttg gattctggtg 300

ttagtgctcc cgattcaagc tttccccaaa cctggaggaa gccaagacaa 350

atctctacat aatagagaat taagtgcaga aagacctttg aatgaacaga 400

ttgctgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaac 450

aagccaggtc agagcaacta ttcttttgtt gataacttga acctgctaaa 500

ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550

gctccccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600

aatcgaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650
taaatttcaa gatgatccag atggtcttca tcaactagac gggactcctt 700

taaccgctga agacattgtc cataaaatcg ctgccaggat ttatgaagaa 750

aatgacagag ccgtgtttga caagattgtt tctaaactac ttaatctcgg 800

ccttatcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850

ttttacaaaa attaatctca aaggaagcca acaattatga ggaggatccc 900

aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950

agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaacg 1000

atgaaacagt atctaacaca ttaaccttga caaatggctt ggaaaggaga 1050

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atatggaagc ttgaaggatt ccacaaaaga tgataactcc aacccaggag 1450

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aaagtaaagt tgtatgtaag ctgaaaaaaa aaaaaaaaaa aaa 1893

<210> 150
<211> 468
<212> PRT
<213> Homo Sapien

<400> 150

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Met Gly Phe Leu Gly Thr Gly Thr Trp Ile Leu Val Leu Val Leu
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Pro Ile Gln Ala Phe Pro Lys Pro Gly Gly Ser Gln Asp Lys Ser
             20                  25                  30

Leu His Asn Arg Glu Leu Ser Ala Glu Arg Pro Leu Asn Glu Gln
             35                  40                  45

Ile Ala Glu Ala Glu Glu Asp Lys Ile Lys Lys Thr Tyr Pro Pro
             50                  55                  60

Glu Asn Lys Pro Gly Gln Ser Asn Tyr Ser Phe Val Asp Asn Leu
             65                  70                  75

Asn Leu Leu Lys Ala Ile Thr Glu Lys Glu Lys Ile Glu Lys Glu
             80                  85                  90

Arg Gln Ser Ile Arg Ser Ser Pro Leu Asp Asn Lys Leu Asn Val
             95                 100                 105

Glu Asp Val Asp Ser Thr Lys Asn Arg Lys Leu Ile Asp Asp Tyr
            110                 115                 120

Asp Ser Thr Lys Ser Gly Leu Asp His Lys Phe Gln Asp Asp Pro
            125                 130                 135

Asp Gly Leu His Gln Leu Asp Gly Thr Pro Leu Thr Ala Glu Asp
            140                 145                 150

Ile Val His Lys Ile Ala Ala Arg Ile Tyr Glu Glu Asn Asp Arg
            155                 160                 165

Ala Val Phe Asp Lys Ile Val Ser Lys Leu Leu Asn Leu Gly Leu
            170                 175                 180

Ile Thr Glu Ser Gln Ala His Thr Leu Glu Asp Glu Val Ala Glu
            185                 190                 195

Val Leu Gln Lys Leu Ile Ser Lys Glu Ala Asn Asn Tyr Glu Glu
            200                 205                 210

Asp Pro Asn Lys Pro Thr Ser Trp Thr Glu Asn Gln Ala Gly Lys
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215 220 225

Ile Pro Glu Lys Val Thr Pro Met Ala Ala Ile Gln Asp Gly Leu
230 235 240

Ala Lys Gly Glu Asn Asp Glu Thr Val Ser Asn Thr Leu Thr Leu
245 250 255

Thr Asn Gly Leu Glu Arg Arg Thr Lys Thr Tyr Ser Glu Asp Asn
260 265 270

Phe Glu Glu Leu Gln Tyr Phe Pro Asn Phe Tyr Ala Leu Leu Lys
275 280 285

Ser Ile Asp Ser Glu Lys Glu Ala Lys Glu Lys Glu Thr Leu Ile
290 295 300

Thr Ile Met Lys Thr Leu Ile Asp Phe Val Lys Met Met Val Lys
305 310 315

Tyr Gly Thr Ile Ser Pro Glu Glu Gly Val Ser Tyr Leu Glu Asn
320 325 330

Leu Asp Glu Met Ile Ala Leu Gln Thr Lys Asn Lys Leu Glu Lys
335 340 345

Asn Ala Thr Asp Asn Ile Ser Lys Leu Phe Pro Ala Pro Ser Glu
350 355 360

Lys Ser His Glu Glu Thr Asp Ser Thr Lys Glu Glu Ala Ala Lys
365 370 375

Met Glu Lys Glu Tyr Gly Ser Leu Lys Asp Ser Thr Lys Asp Asp
380 385 390

Asn Ser Asn Pro Gly Gly Lys Thr Asp Glu Pro Lys Gly Lys Thr
395 400 405

Glu Ala Tyr Leu Glu Ala Ile Arg Lys Asn Ile Glu Trp Leu Lys
410 415 420

Lys His Asp Lys Lys Gly Asn Lys Glu Asp Tyr Asp Leu Ser Lys
425 430 435

Met Arg Asp Phe Ile Asn Lys Gln Ala Asp Ala Tyr Val Glu Lys
440 445 450

Gly Ile Leu Asp Lys Glu Glu Ala Glu Ala Ile Lys Arg Ile Tyr
455 460 465

Ser Ser Leu

<210> 151
<211> 2598
<212> DNA
<213> Homo Sapien

<400> 151
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agtcggctgc ctacccgggc tggttcctgt gcacggtgcc tgaagccgat 450

cagcctgtca gactcaccca gcttcccgag aatggtggct ggaatgcccc 500

catcacagac ttctacttcc agcagtgtga ctagggcaac gtgcccccca 550

gaactccctg ggcagagcca gctcgggtga ggggtgagtg gaggagaccc 600

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ggtctaactt gttatgcagc aatagataaa taatatgcag agaaagag 2598

<210> 152
<211> 155
<212> PRT
<213> Homo Sapien

<400> 152

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20 25 30

Leu His Ala Gly Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val
35 40 45

Pro Asn Arg Trp Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly
50 55 60

Val Gln Gly Gly Ser Gln Cys Leu Ser Cys Gly Val Gly Gln Glu
65 70 75

Pro Thr Leu Thr Leu Glu Pro Val Asn Ile Met Glu Leu Tyr Leu
80 85 90

Gly Ala Lys Glu Ser Lys Ser Phe Thr Phe Tyr Arg Arg Asp Met
95 100 105

Gly Leu Thr Ser Ser Phe Glu Ser Ala Ala Tyr Pro Gly Trp Phe
110 115 120

Leu Cys Thr Val Pro Glu Ala Asp Gln Pro Val Arg Leu Thr Gln
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Leu Pro Glu Asn Gly Gly Trp Asn Ala Pro Ile Thr Asp Phe Tyr
140 145 150

Phe Gln Gln Cys Asp
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<210> 153
<211> 1152
<212> DNA
<213> Homo Sapien

<400> 153
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cc 1152

<210> 154
<211> 179
<212> PRT
<213> Homo Sapien

<400> 154

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Leu	Ala	Thr	Ser	Cys	Leu	Leu	Leu	Leu	Ala	Leu	Leu	Val	Gln	Gly	
				20					25						30
Gly	Ala	Ala	Ala	Pro	Ile	Ser	Ser	His	Cys	Arg	Leu	Asp	Lys	Ser	
				35					40						45
Asn	Phe	Gln	Gln	Pro	Tyr	Ile	Thr	Asn	Arg	Thr	Phe	Met	Leu	Ala	
				50					55						60
Lys	Glu	Ala	Ser	Leu	Ala	Asp	Asn	Asn	Thr	Asp	Val	Arg	Leu	Ile	
				65					70						75
Gly	Glu	Lys	Leu	Phe	His	Gly	Val	Ser	Met	Ser	Glu	Arg	Cys	Tyr	
				80					85						90
Leu	Met	Lys	Gln	Val	Leu	Asn	Phe	Thr	Leu	Glu	Glu	Val	Leu	Phe	
				95					100						105
Pro	Gln	Ser	Asp	Arg	Phe	Gln	Pro	Tyr	Met	Gln	Glu	Val	Val	Pro	
				110					115						120

Phe Leu Ala Arg Leu Ser Asn Arg Leu Ser Thr Cys His Ile Glu
125 130 135

Gly Asp Asp Leu His Ile Gln Arg Asn Val Gln Lys Leu Lys Asp
140 145 150

Thr Val Lys Lys Leu Gly Glu Ser Gly Glu Ile Lys Ala Ile Gly
155 160 165

Glu Leu Asp Leu Leu Phe Met Ser Leu Arg Asn Ala Cys Ile
170 175

<210> 155
<211> 1320
<212> DNA
<213> Homo Sapien

<400> 155
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cccagcatgt accaggtcag tgcagagggc tgcctgaggg ctgtgctgag 150

agggagagga gcagagatgc tgctgagggt ggagggaggc caagctgcca 200

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cctcaacagc agggccatct ccccctggag atatgagttg gacagagact 550

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ctttatttaa aaatgaaaaa 1320

<210> 156
<211> 177
<212> PRT
<213> Homo Sapien

<400> 156

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			20					25						30		
His	Thr	Tyr	Ser	His	Trp	Pro	Ser	Cys	Cys	Pro	Ser	Lys	Gly	Gln		
			35					40						45		
Asp	Thr	Ser	Glu	Glu	Leu	Leu	Arg	Trp	Ser	Thr	Val	Pro	Val	Pro		
			50					55						60		
Pro	Leu	Glu	Pro	Ala	Arg	Pro	Asn	Arg	His	Pro	Glu	Ser	Cys	Arg		
			65					70						75		
Ala	Ser	Glu	Asp	Gly	Pro	Leu	Asn	Ser	Arg	Ala	Ile	Ser	Pro	Trp		
			80					85						90		
Arg	Tyr	Glu	Leu	Asp	Arg	Asp	Leu	Asn	Arg	Leu	Pro	Gln	Asp	Leu		
			95					100						105		
Tyr	His	Ala	Arg	Cys	Leu	Cys	Pro	His	Cys	Val	Ser	Leu	Gln	Thr		
			110					115						120		
Gly	Ser	His	Met	Asp	Pro	Arg	Gly	Asn	Ser	Glu	Leu	Leu	Tyr	His		
			125					130						135		
Asn	Gln	Thr	Val	Phe	Tyr	Arg	Arg	Pro	Cys	His	Gly	Glu	Lys	Gly		
			140					145						150		
Thr	His	Lys	Gly	Tyr	Cys	Leu	Glu	Arg	Arg	Leu	Tyr	Arg	Val	Ser		
			155					160						165		
Leu	Ala	Cys	Val	Cys	Val	Arg	Pro	Arg	Val	Met	Gly					
			170					175								

<210> 157
<211> 1515
<212> DNA
<213> Homo Sapien

<400> 157
ccggcgatgt cgctcgtgct gctaagcctg gccgcgctgt gcaggagcgc 50

cgtaccccga gagccgaccg ttcaatgtgg ctctgaaact gggccatctc 100

cagagtggat gctacaacat gatctaatcc ccggagactt gagggacctc 150

cgagtagaac ctgttacaac tagtgttgca acaggggact attcaatttt 200

gatgaatgta agctgggtac tccgggcaga tgccagcatc cgcttgttga 250

aggccaccaa gatttgtgtg acgggcaaaa gcaacttcca gtcctacagc 300

tgtgtgaggt gcaattacac agaggccttc cagactcaga ccagaccctc 350

tggtggtaaa tggacatttt cctacatcgg cttccctgta gagctgaaca 400

cagtctattt cattggggcc cataatattc ctaatgcaaa tatgaatgaa 450

gatggccctt ccatgtctgt gaatttcacc tcaccaggct gcctagacca 500

cataatgaaa tataaaaaaa agtgtgtcaa ggccggaagc ctgtgggatc 550

cgaacatcac tgcttgtaag aagaatgagg agacagtaga agtgaacttc 600

acaaccactc ccctgggaaa cagatacatg gctcttatcc aacacagcac 650

tatcatcggg ttttctcagg tgtttgagcc acaccagaag aaacaaacgc 700

gagcttcagt ggtgattcca gtgactgggg atagtgaagg tgctacggtg 750

cagctgactc catattttcc tacttgtggc agcgactgca tccgacataa 800

aggaacagtt gtgctctgcc cacaaacagg cgtccctttc cctctggata 850

acaacaaaag caagccggga ggctggctgc ctctcctcct gctgtctctg 900

ctggtggcca catgggtgct ggtggcaggg atctatctaa tgtggaggca 950

cgaaaggatc aagaagactt ccttttctac caccacacta ctgcccccca 1000

ttaaggttct tgtggtttac ccatctgaaa tatgtttcca tcacacaatt 1050

tgttacttca ctgaatttct tcaaaaccat tgcagaagtg aggtcatcct 1100

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gacgtcaaca gtgtgtgcga tggtacctgt ggcaagagcg agggcagtcc 1250

cagtgagaac tctcaagacc tcttcccccc tgcctttaac cttttctgca 1300

gtgatctaag aagccagatt catctgcaca aatacgtggt ggtctacttt 1350

agagagattg atacaaaaga cgattacaat gctctcagtg tctgccccaa 1400

gtaccacctc atgaaggatg ccactgcttt ctgtgcagaa cttctccatg 1450

tcaagcagca ggtgtcagca ggaaaaagat cacaagcctg ccacgatggc 1500

tgctgctcct tgtag 1515

<210> 158
<211> 502
<212> PRT
<213> Homo Sapien

<400> 158

Met	Ser	Leu	Val	Leu	Leu	Ser	Leu	Ala	Ala	Leu	Cys	Arg	Ser	Ala
1				5					10					15
Val	Pro	Arg	Glu	Pro	Thr	Val	Gln	Cys	Gly	Ser	Glu	Thr	Gly	Pro
				20					25					30
Ser	Pro	Glu	Trp	Met	Leu	Gln	His	Asp	Leu	Ile	Pro	Gly	Asp	Leu
				35					40					45
Arg	Asp	Leu	Arg	Val	Glu	Pro	Val	Thr	Thr	Ser	Val	Ala	Thr	Gly
				50					55					60
Asp	Tyr	Ser	Ile	Leu	Met	Asn	Val	Ser	Trp	Val	Leu	Arg	Ala	Asp
				65					70					75
Ala	Ser	Ile	Arg	Leu	Leu	Lys	Ala	Thr	Lys	Ile	Cys	Val	Thr	Gly
				80					85					90
Lys	Ser	Asn	Phe	Gln	Ser	Tyr	Ser	Cys	Val	Arg	Cys	Asn	Tyr	Thr
				95					100					105
Glu	Ala	Phe	Gln	Thr	Gln	Thr	Arg	Pro	Ser	Gly	Gly	Lys	Trp	Thr
				110					115					120
Phe	Ser	Tyr	Ile	Gly	Phe	Pro	Val	Glu	Leu	Asn	Thr	Val	Tyr	Phe
				125					130					135
Ile	Gly	Ala	His	Asn	Ile	Pro	Asn	Ala	Asn	Met	Asn	Glu	Asp	Gly
				140					145					150
Pro	Ser	Met	Ser	Val	Asn	Phe	Thr	Ser	Pro	Gly	Cys	Leu	Asp	His
				155					160					165
Ile	Met	Lys	Tyr	Lys	Lys	Lys	Cys	Val	Lys	Ala	Gly	Ser	Leu	Trp
				170					175					180
Asp	Pro	Asn	Ile	Thr	Ala	Cys	Lys	Lys	Asn	Glu	Glu	Thr	Val	Glu
				185					190					195
Val	Asn	Phe	Thr	Thr	Thr	Pro	Leu	Gly	Asn	Arg	Tyr	Met	Ala	Leu

```
                200                 205                 210

Ile Gln His Ser Thr Ile Ile Gly Phe Ser Gln Val Phe Glu Pro
                215                 220                 225

His Gln Lys Lys Gln Thr Arg Ala Ser Val Val Ile Pro Val Thr
                230                 235                 240

Gly Asp Ser Glu Gly Ala Thr Val Gln Leu Thr Pro Tyr Phe Pro
                245                 250                 255

Thr Cys Gly Ser Asp Cys Ile Arg His Lys Gly Thr Val Val Leu
                260                 265                 270

Cys Pro Gln Thr Gly Val Pro Phe Pro Leu Asp Asn Asn Lys Ser
                275                 280                 285

Lys Pro Gly Gly Trp Leu Pro Leu Leu Leu Leu Ser Leu Leu Val
                290                 295                 300

Ala Thr Trp Val Leu Val Ala Gly Ile Tyr Leu Met Trp Arg His
                305                 310                 315

Glu Arg Ile Lys Lys Thr Ser Phe Ser Thr Thr Thr Leu Leu Pro
                320                 325                 330

Pro Ile Lys Val Leu Val Val Tyr Pro Ser Glu Ile Cys Phe His
                335                 340                 345

His Thr Ile Cys Tyr Phe Thr Glu Phe Leu Gln Asn His Cys Arg
                350                 355                 360

Ser Glu Val Ile Leu Glu Lys Trp Gln Lys Lys Lys Ile Ala Glu
                365                 370                 375

Met Gly Pro Val Gln Trp Leu Ala Thr Gln Lys Lys Ala Ala Asp
                380                 385                 390

Lys Val Val Phe Leu Leu Ser Asn Asp Val Asn Ser Val Cys Asp
                395                 400                 405

Gly Thr Cys Gly Lys Ser Glu Gly Ser Pro Ser Glu Asn Ser Gln
                410                 415                 420

Asp Leu Phe Pro Leu Ala Phe Asn Leu Phe Cys Ser Asp Leu Arg
                425                 430                 435

Ser Gln Ile His Leu His Lys Tyr Val Val Val Tyr Phe Arg Glu
                440                 445                 450

Ile Asp Thr Lys Asp Asp Tyr Asn Ala Leu Ser Val Cys Pro Lys
                455                 460                 465

Tyr His Leu Met Lys Asp Ala Thr Ala Phe Cys Ala Glu Leu Leu
                470                 475                 480

His Val Lys Gln Gln Val Ser Ala Gly Lys Arg Ser Gln Ala Cys
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485 490 495

His Asp Gly Cys Cys Ser Leu
500

<210> 159
<211> 535
<212> DNA
<213> Homo Sapien

<400> 159
agccaccagc gcaacatgac agtgaagacc ctgcatggcc cagccatggt 50

caagtacttg ctgctgtcga tattggggct tgcctttctg agtgaggcgg 100

cagctcggaa aatccccaaa gtaggacata ctttttttcca aaagcctgag 150

agttgcccgc ctgtgccagg aggtagtatg aagcttgaca ttggcatcat 200

caatgaaaac cagcgcgttt ccatgtcacg taacatcgag agccgctcca 250

cctccccctg gaattacact gtcacttggg accccaaccg gtacccctcg 300

gaagttgtac aggcccagtg taggaacttg ggctgcatca atgctcaagg 350

aaaggaagac atctccatga attccgttcc catccagcaa gagaccctgg 400

tcgtccggag gaagcaccaa ggctgctctg tttctttcca gttggagaag 450

gtgctggtga ctgttggctg cacctgcgtc acccctgtca tccaccatgt 500

gcagtaagag gtgcatatcc actcagctga agaag 535

<210> 160
<211> 163
<212> PRT
<213> Homo Sapien

<400> 160
Met Thr Val Lys Thr Leu His Gly Pro Ala Met Val Lys Tyr Leu
1 5 10 15

Leu Leu Ser Ile Leu Gly Leu Ala Phe Leu Ser Glu Ala Ala Ala
20 25 30

Arg Lys Ile Pro Lys Val Gly His Thr Phe Phe Gln Lys Pro Glu
35 40 45

Ser Cys Pro Pro Val Pro Gly Gly Ser Met Lys Leu Asp Ile Gly
50 55 60

Ile Ile Asn Glu Asn Gln Arg Val Ser Met Ser Arg Asn Ile Glu
65 70 75

Ser Arg Ser Thr Ser Pro Trp Asn Tyr Thr Val Thr Trp Asp Pro
80 85 90

Asn Arg Tyr Pro Ser Glu Val Val Gln Ala Gln Cys Arg Asn Leu
95 100 105

Gly Cys Ile Asn Ala Gln Gly Lys Glu Asp Ile Ser Met Asn Ser
110 115 120

Val Pro Ile Gln Gln Glu Thr Leu Val Val Arg Arg Lys His Gln
125 130 135

Gly Cys Ser Val Ser Phe Gln Leu Glu Lys Val Leu Val Thr Val
140 145 150

Gly Cys Thr Cys Val Thr Pro Val Ile His His Val Gln
155 160

<210> 161
<211> 2380
<212> DNA
<213> Homo Sapien

<400> 161
acactggcca aacaaaaacg aaagcactcc gtgctggaag taggaggaga 50

gtcaggactc ccaggacaga gagtgcacaa actacccagc acagcccccc 100

ccgccccctc tggaggctga agagggattc cagcccctgc cacccacaga 150

cacgggctga ctggggtgtc tgcccccctt gggggggggc agcacagggc 200

ctcaggcctg ggtgccacct ggcacctaga agatgcctgt gccctggttc 250

ttgctgtcct tggcactggg ccgaagccca gtggtccttt ctctggagag 300

gcttgtgggg cctcaggacg ctacccactg ctctccgggc ctctcctgcc 350

gcctctggga cagtgacata ctctgcctgc ctggggacat cgtgcctgct 400

ccgggccccg tgctggcgcc tacgcacctg cagacagagc tggtgctgag 450

gtgccagaag gagaccgact gtgacctctg tctgcgtgtg gctgtccact 500

tggccgtgca tgggcactgg gaagagcctg aagatgagga aaagtttgga 550

ggagcagctg actcaggggt ggaggagcct aggaatgcct ctctccaggc 600

ccaagtcgtg ctctccttcc aggcctaccc tactgcccgc tgcgtcctgc 650

tggaggtgca agtgcctgct gcccttgtgc agtttggtca gtctgtgggc 700

tctgtggtat atgactgctt cgaggctgcc ctagggagtg aggtacgaat 750

ctggtcctat actcagccca ggtacgagaa ggaactcaac cacacacagc 800

agctgcctgc cctgccctgg ctcaacgtgt cagcagatgg tgacaacgtg 850
catctggttc tgaatgtctc tgaggagcag cacttcggcc tctccctgta 900

ctggaatcag gtccagggcc ccccaaaacc ccggtggcac aaaaacctga 950

ctggaccgca gatcattacc ttgaaccaca cagacctggt tccctgcctc 1000

tgtattcagg tgtggcctct ggaacctgac tccgttagga cgaacatctg 1050

ccccttcagg gaggaccccc gcgcacacca gaacctctgg caagccgccc 1100

gactgcgact gctgaccctg cagagctggc tgctggacgc accgtgctcg 1150

ctgcccgcag aagcggcact gtgctggcgg gctccgggtg gggacccctg 1200

ccagccactg gtcccaccgc tttcctggga gaacgtcact gtggacaagg 1250

ttctcgagtt cccattgctg aaaggccacc ctaacctctg tgttcaggtg 1300

aacagctcgg agaagctgca gctgcaggag tgcttgtggg ctgactccct 1350

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ccgcgttccg ggcggctcca agagagagcg gagcaagtgt cccgggccct 2250

tcagccagcc ctggatagct acttccatcc cccggggact cccgcgccgg 2300

gacgcggggt gggaccaggg gcgggacctg gggcggggga cgggacttaa 2350

ataaaggcag acgctgtttt tctaaaaaaa 2380

<210> 162
<211> 705
<212> PRT
<213> Homo Sapien

<400> 162

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Met Pro Val Pro Trp Phe Leu Leu Ser Leu Ala Leu Gly Arg Ser
  1               5                  10                  15

Pro Val Val Leu Ser Leu Glu Arg Leu Val Gly Pro Gln Asp Ala
                20                  25                  30

Thr His Cys Ser Pro Gly Leu Ser Cys Arg Leu Trp Asp Ser Asp
                35                  40                  45

Ile Leu Cys Leu Pro Gly Asp Ile Val Pro Ala Pro Gly Pro Val
                50                  55                  60

Leu Ala Pro Thr His Leu Gln Thr Glu Leu Val Leu Arg Cys Gln
                65                  70                  75

Lys Glu Thr Asp Cys Asp Leu Cys Leu Arg Val Ala Val His Leu
                80                  85                  90

Ala Val His Gly His Trp Glu Glu Pro Glu Asp Glu Glu Lys Phe
                95                 100                 105

Gly Gly Ala Ala Asp Ser Gly Val Glu Glu Pro Arg Asn Ala Ser
               110                 115                 120

Leu Gln Ala Gln Val Val Leu Ser Phe Gln Ala Tyr Pro Thr Ala
               125                 130                 135

Arg Cys Val Leu Leu Glu Val Gln Val Pro Ala Ala Leu Val Gln
               140                 145                 150

Phe Gly Gln Ser Val Gly Ser Val Val Tyr Asp Cys Phe Glu Ala
               155                 160                 165

Ala Leu Gly Ser Glu Val Arg Ile Trp Ser Tyr Thr Gln Pro Arg
               170                 175                 180

Tyr Glu Lys Glu Leu Asn His Thr Gln Gln Leu Pro Ala Leu Pro
               185                 190                 195

Trp Leu Asn Val Ser Ala Asp Gly Asp Asn Val His Leu Val Leu
               200                 205                 210

Asn Val Ser Glu Glu Gln His Phe Gly Leu Ser Leu Tyr Trp Asn
               215                 220                 225

Gln Val Gln Gly Pro Pro Lys Pro Arg Trp His Lys Asn Leu Thr
               230                 235                 240

Gly Pro Gln Ile Ile Thr Leu Asn His Thr Asp Leu Val Pro Cys
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                245                 250                 255

Leu Cys Ile Gln Val Trp Pro Leu Glu Pro Asp Ser Val Arg Thr
                260                 265                 270

Asn Ile Cys Pro Phe Arg Glu Asp Pro Arg Ala His Gln Asn Leu
                275                 280                 285

Trp Gln Ala Ala Arg Leu Arg Leu Leu Thr Leu Gln Ser Trp Leu
                290                 295                 300

Leu Asp Ala Pro Cys Ser Leu Pro Ala Glu Ala Ala Leu Cys Trp
                305                 310                 315

Arg Ala Pro Gly Gly Asp Pro Cys Gln Pro Leu Val Pro Pro Leu
                320                 325                 330

Ser Trp Glu Asn Val Thr Val Asp Lys Val Leu Glu Phe Pro Leu
                335                 340                 345

Leu Lys Gly His Pro Asn Leu Cys Val Gln Val Asn Ser Ser Glu
                350                 355                 360

Lys Leu Gln Leu Gln Glu Cys Leu Trp Ala Asp Ser Leu Gly Pro
                365                 370                 375

Leu Lys Asp Asp Val Leu Leu Leu Glu Thr Arg Gly Pro Gln Asp
                380                 385                 390

Asn Arg Ser Leu Cys Ala Leu Glu Pro Ser Gly Cys Thr Ser Leu
                395                 400                 405

Pro Ser Lys Ala Ser Thr Arg Ala Ala Arg Leu Gly Glu Tyr Leu
                410                 415                 420

Leu Gln Asp Leu Gln Ser Gly Gln Cys Leu Gln Leu Trp Asp Asp
                425                 430                 435

Asp Leu Gly Ala Leu Trp Ala Cys Pro Met Asp Lys Tyr Ile His
                440                 445                 450

Lys Arg Trp Ala Leu Val Trp Leu Ala Cys Leu Leu Phe Ala Ala
                455                 460                 465

Ala Leu Ser Leu Ile Leu Leu Leu Lys Lys Asp His Ala Lys Gly
                470                 475                 480

Trp Leu Arg Leu Leu Lys Gln Asp Val Arg Ser Gly Ala Ala Ala
                485                 490                 495

Arg Gly Arg Ala Ala Leu Leu Leu Tyr Ser Ala Asp Asp Ser Gly
                500                 505                 510

Phe Glu Arg Leu Val Gly Ala Leu Ala Ser Ala Leu Cys Gln Leu
                515                 520                 525

Pro Leu Arg Val Ala Val Asp Leu Trp Ser Arg Arg Glu Leu Ser
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530 535 540

Ala Gln Gly Pro Val Ala Trp Phe His Ala Gln Arg Arg Gln Thr
545 550 555

Leu Gln Glu Gly Gly Val Val Val Leu Leu Phe Ser Pro Gly Ala
560 565 570

Val Ala Leu Cys Ser Glu Trp Leu Gln Asp Gly Val Ser Gly Pro
575 580 585

Gly Ala His Gly Pro His Asp Ala Phe Arg Ala Ser Leu Ser Cys
590 595 600

Val Leu Pro Asp Phe Leu Gln Gly Arg Ala Pro Gly Ser Tyr Val
605 610 615

Gly Ala Cys Phe Asp Arg Leu Leu His Pro Asp Ala Val Pro Ala
620 625 630

Leu Phe Arg Thr Val Pro Val Phe Thr Leu Pro Ser Gln Leu Pro
635 640 645

Asp Phe Leu Gly Ala Leu Gln Gln Pro Arg Ala Pro Arg Ser Gly
650 655 660

Arg Leu Gln Glu Arg Ala Glu Gln Val Ser Arg Ala Leu Gln Pro
665 670 675

Ala Leu Asp Ser Tyr Phe His Pro Pro Gly Thr Pro Ala Pro Gly
680 685 690

Arg Gly Val Gly Pro Gly Ala Gly Pro Gly Ala Gly Asp Gly Thr
695 700 705

<210> 163
<211> 2478
<212> DNA
<213> Homo Sapien

<400> 163
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tctgcagcac actaccctca agccacctga tgtgacctgt atctccaaag 100

tgagatcgat tcagatgatt gttcatccta cccccacgcc aatccgtgca 150

ggcgatggcc accggctaac cctggaagac atcttccatg acctgttcta 200

ccacttagag ctccaggtca accgcaccta ccaaatgcac cttggaggga 250

agcagagaga atatgagttc ttcggcctga cccctgacac agagttcctt 300

ggcaccatca tgatttgcgt tcccacctgg gccaaggaga gtgcccccta 350

catgtgccga gtgaagacac tgccagaccg gacatggacc tactccttct 400

ccggagcctt cctgttctcc atgggcttcc tcgtcgcagt actctgctac 450

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cgtccagcga gtcctgactt tccagccgct gcgcttcatc caggagcacg 550

tcctgatccc tgtctttgac ctcagcggcc ccagcagtct ggcccagcct 600

gtccagtact cccagatcag ggtgtctgga cccagggagc ccgcaggagc 650
tccacagcgg catagcctgt ccgagatcac ctacttaggg cagccagaca 700

tctccatcct ccagccctcc aacgtgccac ctccccagat cctctcccca 750

ctgtcctatg ccccaaacgc tgcccctgag gtcgggcccc catcctatgc 800

acctcaggtg acccccgaag ctcaattccc attctacgcc ccacaggcca 850

tctctaaggt ccagccttcc tcctatgccc ctcaagccac tccggacagc 900

tggcctccct cctatggggt atgcatggaa ggttctggca aagactcccc 950

cactgggaca ctttctagtc ctaaacacct taggcctaaa ggtcagcttc 1000

agaaagagcc accagctgga agctgcatgt taggtggcct ttctctgcag 1050

gaggtgacct ccttggctat ggaggaatcc caagaagcaa aatcattgca 1100

ccagcccctg gggatttgca cagacagaac atctgaccca aatgtgctac 1150

acagtgggga ggaagggaca ccacagtacc taaagggcca gctccccctc 1200

ctctcctcag tccagatcga gggccacccc atgtccctcc ctttgcaacc 1250

tccttccggt ccatgttccc cctcggacca aggtccaagt ccctggggcc 1300

tgctggagtc ccttgtgtgt cccaaggatg aagccaagag cccagcccct 1350

gagacctcag acctggagca gcccacagaa ctggattctc ttttcagagg 1400

cctggccctg actgtgcagt gggagtcctg aggggaatgg gaaaggcttg 1450

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acctcctaac accatggatt caaagtgctc agggaatttg cctctccttg 1800

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acttctgcca aggccagggc cagcaggacg gcaggactct agggaggggt 2000

gtggcctgca gctcattccc agccagggca actgcctgac gttgcacgat 2050

ttcagcttca ttcctctgat agaacaaagc gaaatgcagg tccaccaggg 2100

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aaacggtagc tatttaaaaa aaaaaaaa 2478

<210> 164
<211> 574
<212> PRT
<213> Homo Sapien

<400> 164

Met	Arg	Thr	Leu	Leu	Thr	Ile	Leu	Thr	Val	Gly	Ser	Leu	Ala	Ala
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His	Ala	Pro	Glu	Asp	Pro	Ser	Asp	Leu	Leu	Gln	His	Val	Lys	Phe
				20				25					30	
Gln	Ser	Ser	Asn	Phe	Glu	Asn	Ile	Leu	Thr	Trp	Asp	Ser	Gly	Pro
				35				40					45	
Glu	Gly	Thr	Pro	Asp	Thr	Val	Tyr	Ser	Ile	Glu	Tyr	Lys	Thr	Tyr
				50				55					60	
Gly	Glu	Arg	Asp	Trp	Val	Ala	Lys	Lys	Gly	Cys	Gln	Arg	Ile	Thr
				65				70					75	
Arg	Lys	Ser	Cys	Asn	Leu	Thr	Val	Glu	Thr	Gly	Asn	Leu	Thr	Glu
				80				85					90	
Leu	Tyr	Tyr	Ala	Arg	Val	Thr	Ala	Val	Ser	Ala	Gly	Gly	Arg	Ser
				95				100					105	
Ala	Thr	Lys	Met	Thr	Asp	Arg	Phe	Ser	Ser	Leu	Gln	His	Thr	Thr
				110				115					120	
Leu	Lys	Pro	Pro	Asp	Val	Thr	Cys	Ile	Ser	Lys	Val	Arg	Ser	Ile

```
                125                 130                 135

Gln Met Ile Val His Pro Thr Pro Thr Pro Ile Arg Ala Gly Asp
                140                 145                 150

Gly His Arg Leu Thr Leu Glu Asp Ile Phe His Asp Leu Phe Tyr
                155                 160                 165

His Leu Glu Leu Gln Val Asn Arg Thr Tyr Gln Met His Leu Gly
                170                 175                 180

Gly Lys Gln Arg Glu Tyr Glu Phe Phe Gly Leu Thr Pro Asp Thr
                185                 190                 195

Glu Phe Leu Gly Thr Ile Met Ile Cys Val Pro Thr Trp Ala Lys
                200                 205                 210

Glu Ser Ala Pro Tyr Met Cys Arg Val Lys Thr Leu Pro Asp Arg
                215                 220                 225

Thr Trp Thr Tyr Ser Phe Ser Gly Ala Phe Leu Phe Ser Met Gly
                230                 235                 240

Phe Leu Val Ala Val Leu Cys Tyr Leu Ser Tyr Arg Tyr Val Thr
                245                 250                 255

Lys Pro Pro Ala Pro Pro Asn Ser Leu Asn Val Gln Arg Val Leu
                260                 265                 270

Thr Phe Gln Pro Leu Arg Phe Ile Gln Glu His Val Leu Ile Pro
                275                 280                 285

Val Phe Asp Leu Ser Gly Pro Ser Ser Leu Ala Gln Pro Val Gln
                290                 295                 300

Tyr Ser Gln Ile Arg Val Ser Gly Pro Arg Glu Pro Ala Gly Ala
                305                 310                 315

Pro Gln Arg His Ser Leu Ser Glu Ile Thr Tyr Leu Gly Gln Pro
                320                 325                 330

Asp Ile Ser Ile Leu Gln Pro Ser Asn Val Pro Pro Pro Gln Ile
                335                 340                 345

Leu Ser Pro Leu Ser Tyr Ala Pro Asn Ala Ala Pro Glu Val Gly
                350                 355                 360

Pro Pro Ser Tyr Ala Pro Gln Val Thr Pro Glu Ala Gln Phe Pro
                365                 370                 375

Phe Tyr Ala Pro Gln Ala Ile Ser Lys Val Gln Pro Ser Ser Tyr
                380                 385                 390

Ala Pro Gln Ala Thr Pro Asp Ser Trp Pro Pro Ser Tyr Gly Val
                395                 400                 405

Cys Met Glu Gly Ser Gly Lys Asp Ser Pro Thr Gly Thr Leu Ser
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410 415 420

Ser Pro Lys His Leu Arg Pro Lys Gly Gln Leu Gln Lys Glu Pro
425 430 435

Pro Ala Gly Ser Cys Met Leu Gly Gly Leu Ser Leu Gln Glu Val
440 445 450

Thr Ser Leu Ala Met Glu Glu Ser Gln Glu Ala Lys Ser Leu His
455 460 465

Gln Pro Leu Gly Ile Cys Thr Asp Arg Thr Ser Asp Pro Asn Val
470 475 480

Leu His Ser Gly Glu Glu Gly Thr Pro Gln Tyr Leu Lys Gly Gln
485 490 495

Leu Pro Leu Leu Ser Ser Val Gln Ile Glu Gly His Pro Met Ser
500 505 510

Leu Pro Leu Gln Pro Pro Ser Gly Pro Cys Ser Pro Ser Asp Gln
515 520 525

Gly Pro Ser Pro Trp Gly Leu Leu Glu Ser Leu Val Cys Pro Lys
530 535 540

Asp Glu Ala Lys Ser Pro Ala Pro Glu Thr Ser Asp Leu Glu Gln
545 550 555

Pro Thr Glu Leu Asp Ser Leu Phe Arg Gly Leu Ala Leu Thr Val
560 565 570

Gln Trp Glu Ser

<210> 165
<211> 1060
<212> DNA
<213> Homo Sapien

<400> 165
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gtggccacaa catggctgcg gcgccggggc tgctcttctg gctgttcgtg 100

ctgggggcgc tctggtgggt cccgggccag tcggatctca gccacggacg 150

gcgtttctcg gacctcaaag tgtgcgggga cgaagagtgc agcatgttaa 200

tgtaccgtgg gaaagctctt gaagacttca cgggccctga ttgtcgtttt 250

gtgaatttta aaaaaggtga cgatgtatat gtctactaca aactggcagg 300

gggatccctt gaactttggg ctggaagtgt tgaacacagt tttggatatt 350

ttccaaaaga tttgatcaag gtacttcata aatacacgga agaagagcta 400

catattccag cagatgagac agactttgtc tgctttgaag gaggaagaga 450

tgattttaat agttataatg tagaagagct tttaggatct ttggaactgg 500

aggactctgt acctgaagag tcgaagaaag ctgaagaagt ttctcagcac 550

agagagaaat ctcctgagga gtctcggggg cgtgaacttg accctgtgcc 600

tgagcccgag gcattcagag ctgattcaga ggatggagaa ggtgctttct 650

cagagagcac cgaggggctg cagggacagc cctcagctca ggagagccac 700

cctcacacca gcggtcctgc ggctaacgct cagggagtgc agtcttcgtt 750

ggacactttt gaagaaattc tgcacgataa attgaaagtg ccgggaagcg 800

aaagcagaac tggcaatagt tctcctgcct cggtggagcg ggagaagaca 850

gatgcttaca aagtcctgaa aacagaaatg agtcagagag gaagtggaca 900

gtgcgttatt cattacagca aaggatttcg ttggcatcaa aatctaagtt 950
tgttttacaa agattgtttt tagtactaag ctgccttggc agtttgcatt 1000

tttgagccaa acaaaaatat attattttcc cttctaagta aaaaaaaaaa 1050

aaaaaaaaaa 1060

<210> 166
<211> 303
<212> PRT
<213> Homo Sapien

<400> 166
Met Ala Ala Ala Pro Gly Leu Leu Phe Trp Leu Phe Val Leu Gly
1 5 10 15

Ala Leu Trp Trp Val Pro Gly Gln Ser Asp Leu Ser His Gly Arg
20 25 30

Arg Phe Ser Asp Leu Lys Val Cys Gly Asp Glu Glu Cys Ser Met
35 40 45

Leu Met Tyr Arg Gly Lys Ala Leu Glu Asp Phe Thr Gly Pro Asp
50 55 60

Cys Arg Phe Val Asn Phe Lys Lys Gly Asp Asp Val Tyr Val Tyr
65 70 75

Tyr Lys Leu Ala Gly Gly Ser Leu Glu Leu Trp Ala Gly Ser Val
80 85 90

Glu His Ser Phe Gly Tyr Phe Pro Lys Asp Leu Ile Lys Val Leu
95 100 105

His Lys Tyr Thr Glu Glu Glu Leu His Ile Pro Ala Asp Glu Thr
110 115 120

Asp Phe Val Cys Phe Glu Gly Gly Arg Asp Asp Phe Asn Ser Tyr
125 130 135

Asn Val Glu Glu Leu Leu Gly Ser Leu Glu Leu Glu Asp Ser Val
140 145 150

Pro Glu Glu Ser Lys Lys Ala Glu Glu Val Ser Gln His Arg Glu
155 160 165

Lys Ser Pro Glu Glu Ser Arg Gly Arg Glu Leu Asp Pro Val Pro
170 175 180

Glu Pro Glu Ala Phe Arg Ala Asp Ser Glu Asp Gly Glu Gly Ala
185 190 195

Phe Ser Glu Ser Thr Glu Gly Leu Gln Gly Gln Pro Ser Ala Gln
200 205 210

Glu Ser His Pro His Thr Ser Gly Pro Ala Ala Asn Ala Gln Gly
215 220 225

Val Gln Ser Ser Leu Asp Thr Phe Glu Glu Ile Leu His Asp Lys
230 235 240

Leu Lys Val Pro Gly Ser Glu Ser Arg Thr Gly Asn Ser Ser Pro
245 250 255

Ala Ser Val Glu Arg Glu Lys Thr Asp Ala Tyr Lys Val Leu Lys
260 265 270

Thr Glu Met Ser Gln Arg Gly Ser Gly Gln Cys Val Ile His Tyr
275 280 285

Ser Lys Gly Phe Arg Trp His Gln Asn Leu Ser Leu Phe Tyr Lys
290 295 300

Asp Cys Phe

<210> 167
<211> 2570
<212> DNA
<213> Homo Sapien

<400> 167
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tcgaagtctt gaactccagc cccgcacatc cacgcgcggc acaggcgcgg 200

caggcggcag gtcccggccg aaggcgatgc gcgcaggggg tcgggcagct 250

gggctcgggc ggcgggagta gggcccggca gggaggcagg gaggctgcat 300

attcagagtc gcgggctgcg ccctgggcag aggccgccct cgctccacgc 350

aacacctgct gctgccaccg cgccgcgatg agccgcgtgg tctcgctgct 400

gctgggcgcc gcgctgctct gcggccacgg agccttctgc cgccgcgtgg 450

tcagcggcca aaaggtgtgt tttgctgact tcaagcatcc ctgctacaaa 500

atggcctact tccatgaact gtccagccga gtgagctttc aggaggcacg 550

cctggcttgt gagagtgagg gaggagtcct cctcagcctt gagaatgaag 600

cagaacagaa gttaatagag agcatgttgc aaaacctgac aaaacccggg 650

acagggattt ctgatggtga tttctggata gggctttgga ggaatggaga 700

tgggcaaaca tctggtgcct gcccagatct ctaccagtgg tctgatggaa 750

gcaattccca gtaccgaaac tggtacacag atgaaccttc ctgcggaagt 800

gaaaagtgtg ttgtgatgta tcaccaacca actgccaatc ctggccttgg 850

gggtccctac ctttaccagt ggaatgatga caggtgtaac atgaagcaca 900

attatatttg caagtatgaa ccagagatta atccaacagc ccctgtagaa 950

aagccttatc ttacaaatca accaggagac acccatcaga atgtggttgt 1000
tactgaagca ggtataattc ccaatctaat ttatgttgtt ataccaacaa 1050

taccccctgct cttactgata ctggttgctt ttggaacctg ttgtttccag 1100

atgctgcata aaagtaaagg aagaacaaaa actagtccaa accagtctac 1150

actgtggatt tcaaagagta ccagaaaaga aagtggcatg gaagtataat 1200

aactcattga cttggttcca gaattttgta attctggatc tgtataagga 1250

atggcatcag aacaatagct tggaatggct tgaaatcaca aaggatctgc 1300

aagatgaact gtaagctccc ccttgaggca aatattaaag taatttttat 1350

atgtctatta tttcatttaa agaatatgct gtgctaataa tggagtgaga 1400

catgcttatt ttgctaaagg atgcacccaa acttcaaact tcaagcaaat 1450

gaaatggaca atgcagataa agttgttatc aacacgtcgg gagtatgtgt 1500

gttagaagca attccttta tttctttcac ctttcataag ttgttatcta 1550

gtcaatgtaa tgtatattgt attgaaattt acagtgtgca aaagtatttt 1600

acctttgcat aagtgtttga taaaaatgaa ctgttctaat atttatttt 1650

atggcatctc atttttcaat acatgctctt ttgattaaag aaacttatta 1700

ctgttgtcaa ctgaattcac acacacacaa atatagtacc atagaaaaag 1750

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aaacctcctc aaacatttta cttagaggca aggattgtct aatttcaatt 1900

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ttgcctatat aatgagaagc agctctctga gggttctgaa atcaatgtgg 2100

tccctctctt gcccactaaa caaagatggt tgttcggggt ttgggattga 2150

cactggaggc agatagttgc aaagttagtc taaggtttcc ctagctgtat 2200

ttagcctctg actatattag tatacaaaga ggtcatgtgg ttgagaccag 2250

gtgaatagtc actatcagtg tggagacaag cacagcacac agacatttta 2300

ggaaggaaag gaactacgaa atcgtgtgaa aatgggttgg aacccatcag 2350

tgatcgcata ttcattgatg agggtttgct tgagatagaa aatggtggct 2400

cctttctgtc ttatctccta gtttcttcaa tgcttacgcc ttgttcttct 2450

caagagaaag ttgtaactct ctggtcttca tatgtccctg tgctcctttt 2500

aaccaaataa agagttcttg tttctggggg aaaaaaaaaa aaaaaaaaaa 2550

aaaaaaaaaa aaaaaaaaaa 2570

<210> 168
<211> 273
<212> PRT
<213> Homo Sapien

<400> 168

Met	Ser	Arg	Val	Val	Ser	Leu	Leu	Leu	Gly	Ala	Ala	Leu	Leu	Cys
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Gly	His	Gly	Ala	Phe	Cys	Arg	Arg	Val	Val	Ser	Gly	Gln	Lys	Val
				20				25					30	
Cys	Phe	Ala	Asp	Phe	Lys	His	Pro	Cys	Tyr	Lys	Met	Ala	Tyr	Phe
				35				40					45	
His	Glu	Leu	Ser	Ser	Arg	Val	Ser	Phe	Gln	Glu	Ala	Arg	Leu	Ala
				50				55					60	
Cys	Glu	Ser	Glu	Gly	Gly	Val	Leu	Leu	Ser	Leu	Glu	Asn	Glu	Ala
				65				70					75	
Glu	Gln	Lys	Leu	Ile	Glu	Ser	Met	Leu	Gln	Asn	Leu	Thr	Lys	Pro
				80				85					90	

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Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg
                 95                  100                 105

Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln
                110                 115                 120

Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp
                125                 130                 135

Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln
                140                 145                 150

Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp
                155                 160                 165

Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr
                170                 175                 180

Glu Pro Glu Ile Asn Pro Thr Ala Pro Val Glu Lys Pro Tyr Leu
                185                 190                 195

Thr Asn Gln Pro Gly Asp Thr His Gln Asn Val Val Val Thr Glu
                200                 205                 210

Ala Gly Ile Ile Pro Asn Leu Ile Tyr Val Val Ile Pro Thr Ile
                215                 220                 225

Pro Leu Leu Leu Leu Ile Leu Val Ala Phe Gly Thr Cys Cys Phe
                230                 235                 240

Gln Met Leu His Lys Ser Lys Gly Arg Thr Lys Thr Ser Pro Asn
                245                 250                 255
Gln Ser Thr Leu Trp Ile Ser Lys Ser Thr Arg Lys Glu Ser Gly
                260                 265                 270

Met Glu Val
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<210> 169
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 169
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<210> 170
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 170
caggaaacag ctatgaccac ctgcacacct gcaaatccat t 41